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<210> 4242
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<212> PRT
<213> S.epidermidis
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<400> 4242															
Phe	Met	Asp	Asn	Ser	Leu	His	Ala	Thr	Thr	Ile	Tyr	Ala	Val	Arg	His
1				5					10					15	
Asn	Gly	Glu	Ala	Ala	Met	Ala	Gly	Asp	Gly	Gln	Val	Thr	Leu	Gly	Gln
			20					25					30		
Gln	Val	Ile	Met	Lys	Gln	Thr	Ala	Arg	Lys	Val	Arg	Arg	Leu	Tyr	Glu
			35				40					45			
Gly	Lys	Val	Leu	Ala	Gly	Phe	Ala	Gly	Ser	Val	Ala	Asp	Ala	Phe	Thr
	50					55					60				
Leu	Phe	Glu	Lys	Phe	Glu	Thr	Lys	Leu	Gln	Gln	Phe	Ser	Gly	Asn	Leu
65					70					75				80	
Glu	Arg	Ala	Ala	Val	Glu	Leu	Ala	Gln	Glu	Trp	Arg	Gly	Asp	Lys	Gln
				85					90					95	
Leu	Arg	Gln	Leu	Glu	Ala	Met	Leu	Ile	Val	Met	Asn	Lys	Asp	Ala	Ile
			100					105					110		
Leu	Ile	Val	Ser	Gly	Thr	Gly	Glu	Val	Ile	Ala	Pro	Asp	Asp	Asp	Leu

Lys Lys Leu Pro Phe Leu Phe Gly Glu Asp Phe Ser Phe Tyr Gly Gln
 325 330 335
 Gln Leu Ala Pro Ser Tyr Phe Val Phe Val Gly Thr Gln Asn Asn Glu
 340 345 350
 Lys Gly Phe Val Thr Gly Leu His Thr Ala His Leu Asn Phe Asp Glu
 355 360 365
 Lys Ile Leu Ile Asp Val Val Asn Tyr Tyr Glu His Leu Leu Arg Asn
 370 375 380
 Tyr Lys Glu Val
 385

<210> 4244

<211> 428

<212> PRT

<213> S.epidermidis

<400> 4244

Cys Phe Cys Lys Gly Gly Ser Val Met Tyr Asp Tyr Asn Leu Leu Glu
 1 5 10 15
 Asp Arg Asp Val Leu Cys Ile Asp Gln Lys Ser Phe Phe Ala Ser Val
 20 25 30
 Ser Cys Met Glu Lys Gly Leu Asp Pro Leu Thr Thr Lys Leu Ala Val
 35 40 45
 Val Ala Asp Thr Lys Arg Gln Gly Ser Val Val Leu Ala Ala Thr Pro
 50 55 60
 Lys Leu Lys Glu Leu Gly Ile Lys Thr Gly Ser Arg Leu Phe Glu Ile
 65 70 75 80
 Pro His Arg Asn Asp Ile Tyr Ile Ile Asn Pro Ser Met Arg Lys Tyr
 85 90 95
 Leu Asn Val Ser Val Ala Ile Ser Lys Ile Ala Leu Arg Tyr Val Pro
 100 105 110
 Pro Glu Asp Leu His Gln Tyr Ser Ile Asp Glu Phe Phe Met Asp Val
 115 120 125
 Thr Asp Ser Tyr His Arg Phe Asn Ser Thr Val Phe Ala Phe Cys Lys
 130 135 140
 Arg Phe Gln Asn Glu Ile Leu Glu Glu Thr Gly Ile His Cys Thr Ile
 145 150 155 160
 Gly Ile Gly Ser Asn Met Leu Leu Ser Lys Val Ala Met Asp Ile Glu
 165 170 175
 Ala Lys His Ser Glu Asn Gly Ile Ala Glu Trp Arg Tyr Gln Asp Val
 180 185 190
 Pro Glu Lys Leu Trp Pro Ile Gln Pro Leu Arg Asp Phe Trp Gly Ile
 195 200 205
 Asn Lys Arg Thr Glu Lys Lys Leu Asn Lys Arg Gly Ile Phe Thr Ile
 210 215 220
 Gly Asp Leu Ala Lys Tyr Pro Tyr His Tyr Leu Lys Arg Asp Phe Gly
 225 230 235 240
 Val Leu Gly Ile Asp Met His Leu His Ala Asn Gly Ile Asp Gln Ser
 245 250 255
 Lys Val Arg Glu Lys Tyr Lys Val Thr Asn Pro Ser Ile Cys Lys Ser
 260 265 270
 Gln Ile Leu Met Arg Asp Tyr Gln Phe Glu Glu Ser Lys Val Val Met
 275 280 285
 Gln Glu Leu Ile Glu Asp Val Ala Ser Arg Leu Arg Ala Glu Lys Lys
 290 295 300
 Leu Ala Arg Thr Ile His Phe Ser Phe Gly Tyr Ala Glu Gly Gly Gly

305		310		315		320
Ile His Lys Gln Tyr Thr Leu Glu Asp Pro Thr Asn Leu Glu Arg Asp						
		325		330		335
Ile Phe Lys Val Ile Asn Tyr Phe Ala Asn Arg Leu Cys Asp Lys Lys						
		340		345		350
Ala Leu Tyr Arg Thr Leu Ser Val Ser Leu Thr Gln Phe Ile Lys Glu						
		355		360		365
Ser Asp Arg Gln Leu Asn Leu Phe Ile Asp Glu Tyr Glu Arg Lys Lys						
		370		375		380
Asp Val Lys Leu Ala Lys Thr Ile Asp His Leu His Leu Lys Tyr Gly						
385		390		395		400
Lys Gly Ile Val Ser Lys Ala Thr Ser Tyr Thr Glu Ala Gly Thr Lys						
		405		410		415
His Gly Arg Leu Gly Leu Met Ala Gly His Lys Met						
		420		425		

<210> 4245

<211> 333

<212> PRT

<213> S.epidermidis

<400> 4245

Phe Tyr Cys Lys Gly Leu Lys Lys Met Lys Ile Phe Asp Tyr Glu Asp																
1				5				10							15	
Ile Gln Leu Ile Pro Asn Lys Cys Ile Val Glu Ser Arg Ser Glu Cys																
			20					25							30	
Asn Thr Ser Val Lys Phe Gly Pro Arg Thr Phe Lys Leu Pro Val Val																
			35					40							45	
Pro Ala Asn Met Gln Thr Val Met Asn Glu Glu Leu Ala Gln Trp Phe																
			50					55							60	
Ala Glu Asn Asp Tyr Phe Tyr Ile Met His Arg Phe Asn Glu Glu Asn																
65								70							75	
Arg Ile Pro Phe Ile Lys Lys Met His His Ala Gly Leu Phe Ala Ser																
			85					90							95	
Ile Ser Val Gly Val Lys Glu Asn Glu Phe Asn Phe Ile Glu Lys Leu																
			100					105							110	
Ala Ser Ser Ser Leu Ile Pro Glu Tyr Ile Thr Ile Asp Ile Ala His																
			115					120							125	
Gly His Ser Asn Ser Val Ile Asn Met Ile Lys His Ile Lys Lys His																
			130					135							140	
Leu Pro Asn Ser Phe Val Ile Ala Gly Asn Val Gly Thr Pro Glu Gly																
145								150							155	
Val Arg Glu Leu Glu Asn Ala Gly Ala Asp Ala Thr Lys Val Gly Ile																
			165					170							175	
Gly Pro Gly Arg Val Cys Ile Thr Lys Ile Lys Thr Gly Phe Gly Thr																
			180					185							190	
Gly Gly Trp Gln Leu Ser Ala Leu Asn Leu Cys Asn Lys Ala Ala Arg																
			195					200							205	
Lys Pro Ile Ile Ala Asp Gly Gly Leu Arg Thr His Gly Asp Ile Ala																
			210					215							220	
Lys Ser Ile Arg Phe Gly Ala Thr Met Val Met Ile Gly Ser Leu Phe																
225								230							235	
Ala Ala His Glu Glu Ser Pro Gly Glu Thr Val Glu Leu Asp Gly Lys																
			245					250							255	
Lys Tyr Lys Glu Tyr Phe Gly Ser Ala Ser Glu Tyr Gln Lys Gly Glu																
			260					265							270	

His Lys Asn Val Glu Gly Lys Lys Met Phe Val Glu His Lys Gly Ser
 275 280 285
 Leu Lys Asp Thr Leu Thr Glu Met Glu Gln Asp Leu Gln Ser Ser Ile
 290 295 300
 Ser Tyr Ala Gly Gly Lys Asp Leu Lys Ser Leu Arg Thr Val Asp Tyr
 305 310 315 320
 Val Ile Val Arg Asn Ser Ile Phe Asn Gly Asp Arg Asp
 325 330

<210> 4246

<211> 151

<212> PRT

<213> S.epidermidis

<400> 4246

Arg Val Gly Asn Ile Met Phe Lys Phe Asn Phe Phe Tyr Ile Ser Lys
 1 5 10 15
 Ile Arg Ala Thr Trp Met Leu Tyr Leu Ile Gly Ile Tyr Pro Leu Leu
 20 25 30
 Ile Phe Leu Ala Glu Leu Leu Asn Ser Asn Phe Leu Ser Leu Ser Ala
 35 40 45
 Thr His Lys Asn Ser Val Ser Phe Leu Glu Leu Phe Ile Ala Ile Tyr
 50 55 60
 Asp Thr Gln Gln Lys Val Met Leu Ser Leu Ile Ile Ile Gly Tyr Leu
 65 70 75 80
 Ser Ser Leu Leu Phe Tyr Ser Glu Ile Ser Thr Gly Arg Leu Leu Phe
 85 90 95
 Tyr Lys Asp Gln Ser Arg Tyr Lys Ile Phe Asn Ser Lys Leu Thr Ser
 100 105 110
 Ile Ile Ser Ser Tyr Phe Ile Phe Leu Phe Ile Leu Leu Leu Ser Thr
 115 120 125
 Leu Val Val Tyr Val Phe Tyr Val Asn Asn His Glu Tyr Ser Ser His
 130 135 140
 Ser Phe Met Leu Asn Asn Ser
 145 150

<210> 4247

<211> 171

<212> PRT

<213> S.epidermidis

<400> 4247

Met Asn Ile Asn Thr Ala Tyr Phe Ala Gly Gly Cys Phe Trp Cys Met
 1 5 10 15
 Thr Lys Pro Phe Asp Thr Phe Asp Gly Ile Glu Lys Val Thr Ser Gly
 20 25 30
 Tyr Met Gly Gly Asn Leu Val Asn Pro Ser Tyr Glu Glu Val Lys Thr
 35 40 45
 Gly Ser Thr Gly His Tyr Glu Val Val Lys Ile Glu Tyr Asp Val Ala
 50 55 60
 Leu Phe Ser Tyr His Lys Leu Leu Glu Ile Phe Phe Ser Val Ile Asp
 65 70 75 80
 Pro Leu Asp Asp Gly Gly Gln Phe Gln Asp Arg Gly Ser Gln Tyr Lys
 85 90 95
 Thr Ala Ile Phe Tyr Ser Asn Glu His Gln Arg Gln Leu Ala Glu Gln
 100 105 110

Tyr Ile Cys Glu Leu Gln Asp Ser Phe Asn Ala Asp Lys Ala Ile Ala
 115 120 125
 Thr Lys Ile Leu Pro Ala Ser Thr Phe Tyr Glu Ala Glu Ala Tyr His
 130 135 140
 Gln Asp Phe Tyr Lys Lys Asn Pro Glu Arg Tyr Glu Gln Glu Gln Gln
 145 150 155 160
 Asp Arg Ala Ser Tyr Val Lys Asn Asn His Met
 165 170

<210> 4248

<211> 125

<212> PRT

<213> S.epidermidis

<400> 4248

Ile Ile Thr Lys Val Glu Ala His Ile Ile Ile Leu Ile Ile Lys Val
 1 5 10 15
 Tyr Met Ser His Ser Leu Asn Thr Arg Asn Pro Pro Phe Pro Thr Asp
 20 25 30
 Gly Asp Gly Tyr Glu Tyr Asn Tyr Arg Gln Asp Asp Asp Asn Tyr Phe
 35 40 45
 Glu Gln Pro Gly Lys Leu Phe Arg Leu Gln Ser Glu Asp Ala Lys Glu
 50 55 60
 Arg Ile Phe Thr Asn Thr Ala Asn Ala Met Asp Gly Val Ser Lys Asp
 65 70 75 80
 Val Lys Val Arg His Ile Arg His Cys Tyr Lys Ala Asp Pro Glu Tyr
 85 90 95
 Gly Lys Gly Val Ala Lys Ala Leu Gly Ile Asp Ile Asn Gln Ile Asp
 100 105 110
 Leu Glu Thr Asn Gln Asp Glu Thr Tyr Glu Asn Phe Lys
 115 120 125

<210> 4249

<211> 42

<212> PRT

<213> S.epidermidis

<400> 4249

Lys Arg Tyr Lys Lys Arg Asn Thr Ile Asn Lys Thr Ile Glu Leu Asp
 1 5 10 15
 Pro Ser Leu Ile Tyr Lys Leu Lys Ile Phe Val Val Ile Asp Asp Leu
 20 25 30
 Leu Arg Asn Asn Leu Phe Leu Ile Asn Phe
 35 40

<210> 4250

<211> 134

<212> PRT

<213> S.epidermidis

<400> 4250

Ile Asn Asn Lys Phe Lys Ser Arg Gly Glu Val Gln Val Met Ser Asn
 1 5 10 15
 Asp Ser Ile Arg Arg Asn Met Ala Val Phe Ser Met Ser Val Val Ser
 20 25 30
 Lys Leu Thr Asp Leu Ser Pro Arg Gln Ile Arg Tyr Tyr Glu Thr His

	35					40						45					
Glu	Leu	Val	Met	Pro	Glu	Arg	Thr	Asp	Gly	Asn	Lys	Arg	Leu	Phe	Ser		
	50					55					60						
Met	Asn	Asp	Leu	Glu	Arg	Leu	Leu	Glu	Ile	Lys	Ser	Leu	Ile	Glu	Lys		
65					70					75					80		
Gly	Phe	Asn	Ile	Arg	Gly	Ile	Lys	Gln	Ile	Ile	Phe	Asp	Glu	Gln	Gly		
				85				90						95			
His	Leu	Thr	Thr	Asp	Glu	Gln	Glu	Thr	Arg	Lys	Arg	Met	Ile	Val	Asp		
			100					105					110				
Ala	Thr	Gln	Lys	Pro	Arg	Ser	Glu	Thr	Leu	Pro	Ile	Asn	Arg	Gly	Asp		
		115					120					125					
Leu	Ser	Arg	Phe	Ile	Lys												
	130																

<210> 4251

<211> 309

<212> PRT

<213> S.epidermidis

<400> 4251

Arg	Cys	Asp	Asn	Met	Tyr	Asn	Gly	Ile	Leu	Pro	Val	Phe	Lys	Lys	Arg		
1				5					10					15			
Gly	Leu	Thr	Ser	His	Asp	Val	Val	Phe	Lys	Leu	Arg	Lys	Ile	Leu	Lys		
			20					25					30				
Met	Lys	Lys	Ile	Gly	His	Thr	Gly	Thr	Leu	Asp	Pro	Glu	Val	Asn	Gly		
		35					40					45					
Val	Leu	Pro	Ile	Cys	Leu	Gly	Asp	Ala	Thr	Lys	Val	Ser	Asp	Tyr	Ile		
	50					55				60							
Met	Glu	Met	Gly	Lys	Thr	Tyr	His	Ala	Met	Ile	Thr	Leu	Gly	Lys	Ser		
65					70					75					80		
Thr	Thr	Thr	Glu	Asp	Gln	Thr	Gly	Asp	Ile	Leu	Glu	Thr	Arg	Ala	Val		
				85				90						95			
Asp	Lys	Asn	Asp	Ile	Asn	Glu	Asp	Thr	Ile	Asp	Gln	Val	Leu	Gln	Gln		
			100					105					110				
Phe	Glu	Gly	His	Ile	Gln	Gln	Ile	Pro	Pro	Met	Tyr	Ser	Ser	Val	Lys		
		115					120					125					
Val	Asn	Gly	Arg	Lys	Leu	Tyr	Glu	Tyr	Ala	Arg	Asn	Asn	Glu	Thr	Val		
	130					135					140						
Glu	Arg	Pro	Lys	Arg	Gln	Val	Phe	Ile	Lys	Asp	Ile	His	Arg	Ile	Ser		
145					150					155					160		
Glu	Val	Thr	Phe	Gln	Glu	Gln	Thr	Cys	His	Phe	Glu	Val	Glu	Val	Thr		
				165				170						175			
Cys	Gly	Lys	Gly	Thr	Tyr	Ile	Arg	Thr	Leu	Ala	Thr	Asp	Ile	Gly	Leu		
			180					185					190				
Lys	Leu	Gly	Phe	Pro	Ala	His	Met	Ser	Arg	Leu	Thr	Arg	Ile	Ala	Ser		
		195					200					205					
Gly	Gly	Phe	Gln	Leu	Glu	Ser	Ser	Leu	Thr	Ile	Asp	Gln	Ile	Lys	Glu		
	210					215					220						
Leu	His	Glu	His	Asp	Ser	Leu	His	Asn	Glu	Leu	Phe	Pro	Ile	Glu	Tyr		
225					230					235					240		
Gly	Leu	Lys	Gly	Leu	Lys	Ser	Phe	Gln	Val	Lys	Asp	Ser	Asn	Phe	Lys		
				245				250						255			
Lys	Lys	Ile	Cys	Asn	Gly	Gln	Lys	Phe	His	Lys	Lys	Val	Leu	Ser	Gln		
			260					265					270				
Asn	Val	Lys	Glu	Pro	Phe	Ile	Phe	Val	Asp	Ser	Ser	Thr	Gln	Lys	Val		
		275					280						285				

<400> 4254
Phe Leu Leu Asn Ile Lys Glu Val Lys Ser Met Leu Glu Phe Arg Asn
1 5 10 15
Val Tyr Lys Ser Phe Lys Lys Lys Glu Val Leu Cys Asp Val Asn Tyr

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<210> 4255
<211> 105
<212> PRT
<213> S.epidermidis
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Val	Leu	Leu	Lys	Leu	Thr	Glu	Tyr	Leu	Leu	Ile	Ile	Met	Ile	Ala	Ile
1				5					10					15	
Ile	Lys	Phe	Asn	Ala	Leu	Arg	Lys	Arg	Phe	Gln	Met	Ser	Lys	Glu	Asn
			20					25					30		
Leu	Asn	Ile	Asp	Arg	Ile	Asn	Glu	Leu	Ala	Arg	Lys	Lys	Lys	Glu	His
			35				40					45			
Gly	Leu	Thr	Asn	Glu	Glu	Ala	Lys	Glu	Gln	Thr	Lys	Leu	Arg	Arg	Gln
			50			55					60				
Tyr	Leu	Glu	Glu	Phe	Arg	Lys	Gly	Phe	Lys	Gln	Gln	Ile	Glu	Asn	Thr
65					70					75				80	
Lys	Val	Ile	Asp	Pro	Glu	Gly	Asn	Asp	Val	Thr	Pro	Glu	Lys	Leu	Lys
				85					90					95	
Lys	Ile	Gln	Glu	Glu	Lys	His	Asn	Lys							
			100					105							

<210> 4256
 <211> 914
 <212> PRT
 <213> S.epidermidis

<400> 4256

Arg	His	Ile	Asn	Ile	Tyr	Lys	Tyr	Gln	Gly	Gly	Tyr	Lys	Met	Ala	Ser	1	5	10	15
Asn	Ile	Lys	Glu	Gln	Ala	Lys	Lys	Gln	Phe	Glu	Leu	Asn	Gly	Gln	Ser	20	25	30	
Tyr	Thr	Tyr	Tyr	Asp	Leu	Gln	Thr	Leu	Glu	Glu	Lys	Gly	Leu	Ala	Lys	35	40	45	
Ile	Ser	Lys	Leu	Pro	Tyr	Ser	Ile	Arg	Val	Leu	Leu	Glu	Ser	Val	Leu	50	55	60	
Arg	Gln	Glu	Asp	Asp	Phe	Val	Ile	Thr	Asp	Asp	His	Ile	Lys	Ala	Leu	65	70	75	80
Ser	Lys	Phe	Gly	Asn	Ala	Gly	Asn	Glu	Gly	Glu	Val	Pro	Phe	Lys	Pro	85	90	95	
Ser	Arg	Val	Ile	Leu	Gln	Asp	Phe	Thr	Gly	Val	Pro	Ala	Val	Val	Asp	100	105	110	
Leu	Ala	Ser	Leu	Arg	Lys	Ala	Met	Asn	Asp	Val	Gly	Gly	Asp	Ile	Asn	115	120	125	
Lys	Ile	Asn	Pro	Glu	Val	Pro	Val	Asp	Leu	Val	Ile	Asp	His	Ser	Val	130	135	140	
Gln	Val	Asp	Ser	Tyr	Ala	Asn	Pro	Glu	Ala	Leu	Glu	Arg	Asn	Met	Lys	145	150	155	160
Leu	Glu	Phe	Glu	Arg	Asn	Tyr	Glu	Arg	Tyr	Gln	Phe	Leu	Asn	Trp	Ala	165	170	175	
Thr	Lys	Ala	Phe	Asp	Asn	Tyr	Asn	Ala	Val	Pro	Pro	Ala	Thr	Gly	Ile	180	185	190	
Val	His	Gln	Val	Asn	Leu	Glu	Tyr	Leu	Ala	Asn	Val	Val	His	Val	Arg	195	200	205	
Asp	Val	Asp	Gly	Glu	Lys	Thr	Ala	Phe	Pro	Asp	Thr	Leu	Val	Gly	Thr	210	215	220	
Asp	Ser	His	Thr	Thr	Met	Ile	Asn	Gly	Ile	Gly	Val	Leu	Gly	Trp	Gly	225	230	235	240
Val	Gly	Gly	Ile	Glu	Ala	Glu	Ala	Gly	Met	Leu	Gly	Gln	Pro	Ser	Tyr	245	250	255	
Phe	Pro	Ile	Pro	Glu	Val	Ile	Gly	Val	Arg	Leu	Thr	His	Ser	Leu	Pro	260	265	270	
Gln	Gly	Ser	Thr	Ala	Thr	Asp	Leu	Ala	Leu	Arg	Val	Thr	Glu	Glu	Leu	275	280	285	
Arg	Lys	Lys	Gly	Val	Val	Gly	Lys	Phe	Val	Glu	Phe	Phe	Gly	Pro	Gly	290	295	300	
Val	Gln	His	Leu	Pro	Leu	Ala	Asp	Arg	Ala	Thr	Ile	Ala	Asn	Met	Ala	305	310	315	320
Pro	Glu	Tyr	Gly	Ala	Thr	Cys	Gly	Phe	Phe	Pro	Val	Asp	Glu	Glu	Ser	325	330	335	
Leu	Lys	Tyr	Met	Lys	Leu	Thr	Gly	Arg	Asp	Glu	Glu	His	Ile	Glu	Leu	340	345	350	
Val	Lys	Glu	Tyr	Leu	Gln	Gln	Asn	His	Met	Phe	Phe	Asp	Val	Glu	Lys	355	360	365	
Glu	Asp	Pro	Glu	Tyr	Thr	Asp	Val	Ile	Asp	Leu	Asp	Leu	Ser	Thr	Val	370	375	380	
Glu	Ala	Ser	Leu	Ser	Gly	Pro	Lys	Arg	Pro	Gln	Asp	Leu	Ile	Phe	Leu				

385					390					395					400
Ser	Asp	Met	Lys	Lys	Glu	Phe	Glu	Lys	Ser	Val	Thr	Ala	Pro	Ala	Gly
				405					410					415	
Asn	Gln	Gly	His	Gly	Leu	Asp	Gln	Ser	Glu	Phe	Asp	Lys	Lys	Ala	Glu
			420					425					430		
Ile	Asn	Phe	Asn	Asp	Gly	Ser	Lys	Ala	Thr	Met	Lys	Thr	Gly	Asp	Ile
		435					440					445			
Ala	Ile	Ala	Ala	Ile	Thr	Ser	Cys	Thr	Asn	Thr	Ser	Asn	Pro	Tyr	Val
	450					455					460				
Met	Leu	Gly	Ala	Gly	Leu	Val	Ala	Lys	Lys	Ala	Val	Glu	Lys	Gly	Leu
465					470					475					480
Lys	Val	Pro	Glu	Phe	Val	Lys	Thr	Ser	Leu	Ala	Pro	Gly	Ser	Lys	Val
				485					490					495	
Val	Thr	Gly	Tyr	Leu	Arg	Asp	Ser	Gly	Leu	Gln	Gln	Tyr	Leu	Asp	Asp
			500					505					510		
Leu	Gly	Phe	Asn	Leu	Val	Gly	Tyr	Gly	Cys	Thr	Thr	Cys	Ile	Gly	Asn
		515					520					525			
Ser	Gly	Pro	Leu	Leu	Ile	Glu	Ile	Glu	Lys	Ala	Val	Ala	Asp	Glu	Asp
	530					535					540				
Leu	Leu	Val	Thr	Ser	Val	Leu	Ser	Gly	Asn	Arg	Asn	Phe	Glu	Gly	Arg
545					550					555					560
Ile	His	Pro	Leu	Val	Lys	Ala	Asn	Tyr	Leu	Ala	Ser	Pro	Gln	Leu	Val
				565					570					575	
Val	Ala	Tyr	Ala	Leu	Ala	Gly	Thr	Val	Asp	Ile	Asp	Leu	Gln	Asn	Glu
			580					585					590		
Pro	Ile	Gly	Lys	Gly	Lys	Asp	Gly	Lys	Asp	Val	Tyr	Leu	Gln	Asp	Ile
		595					600					605			
Trp	Pro	Ser	Ile	Gln	Glu	Val	Ser	Asp	Thr	Val	Asp	Lys	Val	Val	Thr
	610					615					620				
Pro	Glu	Leu	Phe	Leu	Glu	Glu	Tyr	Lys	Asn	Val	Tyr	His	Asn	Asn	Glu
625					630					635					640
Met	Trp	Asn	Glu	Ile	Asp	Val	Thr	Asp	Glu	Pro	Leu	Tyr	Asp	Phe	Asp
				645					650					655	
Pro	Asn	Ser	Thr	Tyr	Ile	Gln	Asn	Pro	Thr	Phe	Phe	Gln	Gly	Leu	Ser
			660					665					670		
Lys	Glu	Pro	Gly	Lys	Ile	Glu	Pro	Leu	Lys	Ser	Leu	Arg	Val	Met	Gly
		675					680					685			
Lys	Phe	Gly	Asp	Ser	Val	Thr	Thr	Asp	His	Ile	Ser	Pro	Ala	Gly	Ala
	690					695					700				
Ile	Gly	Lys	Asp	Thr	Pro	Ala	Gly	Lys	Tyr	Leu	Leu	Asp	His	Asp	Val
705					710					715					720
Ala	Ile	Arg	Asn	Phe	Asn	Ser	Tyr	Gly	Ser	Arg	Arg	Gly	Asn	His	Glu
				725					730					735	
Val	Met	Val	Arg	Gly	Thr	Phe	Ala	Asn	Ile	Arg	Ile	Lys	Asn	Gln	Leu
			740					745					750		
Ala	Pro	Gly	Thr	Glu	Gly	Gly	Phe	Thr	Thr	Tyr	Trp	Pro	Thr	Gly	Glu
		755					760					765			
Ile	Met	Pro	Ile	Tyr	Asp	Ala	Ala	Met	Lys	Tyr	Lys	Glu	Asp	Gly	Thr
	770					775					780				
Gly	Leu	Val	Val	Leu	Ala	Gly	Asn	Asp	Tyr	Gly	Met	Gly	Ser	Ser	Arg
785					790					795					800
Asp	Trp	Ala	Ala	Lys	Gly	Thr	Asn	Leu	Leu	Gly	Val	Lys	Thr	Val	Ile
				805					810					815	
Ala	Gln	Ser	Tyr	Glu	Arg	Ile	His	Arg	Ser	Asn	Leu	Val	Met	Met	Gly
			820					825					830		
Val	Leu	Pro	Leu	Gln	Phe	Gln	Gln	Gly	Glu	Ser	Ala	Glu	Ala	Leu	Gly

	835		840		845										
Leu	Asp	Gly	Lys	Glu	Glu	Ile	Ser	Val	Asp	Ile	Asn	Glu	Asp	Val	Gln
	850					855					860				
Pro	His	Asp	Leu	Val	Asn	Val	Thr	Ala	Lys	Lys	Glu	Asn	Gly	Glu	Ile
865					870					875					880
Ile	Asn	Phe	Lys	Ala	Ile	Val	Arg	Phe	Asp	Ser	Leu	Val	Glu	Leu	Asp
				885					890					895	
Tyr	Tyr	Arg	His	Gly	Gly	Ile	Leu	Gln	Met	Val	Leu	Arg	Asn	Lys	Leu
			900					905					910		
Ala	Gln														

<210> 4257
 <211> 58
 <212> PRT
 <213> S.epidermidis

Ile	Ala	Ile	Asn	Thr	Gly	Asn	Gln	Phe	Thr	Ile	Ala	Leu	Thr	Phe	Phe
1				5					10					15	
Ile	Ile	Lys	Gly	Gln	Leu	Asn	Leu	Arg	Asn	Arg	Arg	Met	Glu	Asp	Glu
			20					25					30		
Tyr	Pro	Arg	Val	Ser	Arg	Glu	Arg	Asn	Ile	Ser	Phe	Asn	Gly	Arg	Cys
		35					40					45			
Ser	Ser	Arg	Gly	Thr	Ser	Ser	Ile	Tyr	Cys						
	50					55									

<210> 4258
 <211> 241
 <212> PRT
 <213> S.epidermidis

Arg	Gly	Val	Lys	Met	Ser	Glu	Met	Ser	Ala	Ile	Tyr	Arg	Val	Lys	Gln
1				5					10					15	
Tyr	Ile	Leu	Asn	Leu	Ile	Lys	Asp	Gly	Glu	Leu	Thr	Asn	Gly	Ser	Lys
			20					25					30		
Leu	Pro	Ser	Asn	Leu	Ser	Ile	Ala	Arg	Ala	Leu	Asn	Val	Lys	Thr	Asp
		35					40					45			
Asp	Val	Tyr	Asp	Gly	Ile	Asp	Glu	Leu	Ile	Thr	Glu	Gln	Val	Val	Thr
	50					55					60				
Asp	Asn	Phe	Glu	Glu	Gly	Thr	Ser	Val	Lys	Val	Lys	Pro	Pro	Phe	Tyr
65					70				75					80	
Tyr	Pro	Leu	Asn	Lys	Ile	Ile	Ser	Ile	Gly	Thr	Met	Ile	Lys	Glu	Ala
			85						90				95		
Gly	Tyr	Glu	Ala	Gly	Thr	Glu	Tyr	Leu	Asn	Leu	Asp	Glu	Gln	Pro	Ala
		100						105					110		
Thr	Ile	Leu	Asp	Ala	Glu	His	Leu	Gly	Ile	Glu	Thr	Lys	Glu	Pro	Ile
		115					120					125			
Thr	Ile	Ile	Glu	Arg	Leu	Arg	Thr	Ala	Asn	His	Lys	Pro	Val	Val	Tyr
	130					135					140				
Cys	Leu	Asp	Lys	Ile	Ala	Lys	Thr	Tyr	Leu	Thr	Cys	Thr	Asp	Tyr	Gln
145					150				155						160
Gln	Ser	Ser	Gly	Ser	Met	Leu	Glu	Ala	Ile	Lys	Ala	Ser	Thr	Asn	His
				165					170					175	
Gln	Ile	Met	His	Ala	Glu	Met	Asp	Leu	Glu	Ala	Ile	Ser	Tyr	Glu	Pro

			180					185					190			
His	Ile	Ser	Glu	Val	Leu	Asn	Ala	Ser	Pro	His	Glu	Gly	Leu	Met	Leu	
		195					200					205				
Leu	Lys	Val	Val	His	Tyr	Asp	Glu	Lys	His	Gln	Pro	Ile	Leu	Tyr	Ser	
	210					215					220					
Leu	Asn	Tyr	Ile	Lys	Ser	Ser	Leu	Val	Lys	Phe	Thr	Ile	Thr	Lys	Ser	
225					230					235					240	
Glu																

<210> 4259

<211> 362

<212> PRT

<213> S.epidermidis

<400> 4259

Arg	Gly	Val	Lys	Gln	Leu	Thr	Ala	Ile	Trp	Ser	Leu	Asp	Thr	Glu	Ala	
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Phe	Tyr	Gln	Asn	Ala	Val	Lys	Val	Lys	Asn	Asn	Glu	Pro	Ile	Met	Ala	
			20					25					30			
Val	Val	Lys	Asn	Asn	Ala	Tyr	His	Tyr	Gly	Leu	Glu	Phe	Ala	Val	Lys	
		35				40						45				
Thr	Phe	Leu	Lys	Ala	Glu	Ile	Asn	Thr	Phe	Ser	Thr	Thr	Ser	Leu	Asn	
	50					55					60					
Glu	Ala	Ile	Arg	Val	Arg	Lys	Ile	Ala	Pro	Glu	Ala	Thr	Ile	Phe	Leu	
65					70					75					80	
Met	Asn	Pro	Val	Tyr	Asp	Phe	Asp	Leu	Val	Lys	Arg	Tyr	Asp	Ile	His	
			85					90						95		
Met	Thr	Leu	Pro	Ser	Leu	Asn	Tyr	Tyr	Lys	Tyr	Lys	Lys	Gln	Asp	Leu	
		100						105					110			
Lys	Gly	Ile	His	Val	His	Leu	Glu	Tyr	Glu	Asn	Leu	Leu	His	Arg	Ser	
		115					120					125				
Gly	Phe	Arg	Asn	Ile	Glu	Glu	Ile	Arg	Glu	Val	Leu	Lys	Asp	His	Asp	
	130					135					140					
Gln	Asn	Asn	Gln	Asp	Lys	Met	Ile	Ile	Ser	Gly	Ile	Trp	Thr	His	Phe	
145					150					155					160	
Gly	Tyr	Ala	Asp	Glu	Phe	Asp	Val	Asp	Glu	Tyr	Lys	Met	Glu	Arg	Asp	
			165						170					175		
Ala	Trp	Leu	Asn	Leu	Ile	Asn	Thr	Leu	Leu	Asn	Glu	Asn	Tyr	His	Phe	
			180					185					190			
Asp	Met	Ile	His	Ser	Gln	Asn	Ser	Ala	Ser	Tyr	Phe	Arg	Glu	Asn	Gln	
	195						200					205				
Met	Leu	Leu	Pro	His	His	Thr	His	Ala	Arg	Val	Gly	Ile	Ala	Leu	Tyr	
	210					215					220					
Gly	Ser	Arg	Pro	Tyr	Ser	Leu	Ile	Asn	Glu	Glu	Arg	Ile	Thr	Gln	Ser	
225					230					235					240	
Leu	Thr	Val	Lys	Gly	Asn	Val	Ile	Gln	Val	Arg	Asp	Val	Asn	Lys	Gly	
			245						250					255		
Asp	Tyr	Cys	Gly	Tyr	Ser	Phe	Ala	Phe	Glu	Val	Lys	Asn	Asp	His	Thr	
		260						265					270			
Gln	Leu	Ala	Val	Val	Asp	Ile	Gly	Tyr	Gly	Asp	Gly	Ile	Leu	Lys	Ser	
	275						280					285				
Arg	Ala	Lys	His	Glu	Ala	Ile	Ile	Asn	Gly	Lys	Arg	Tyr	Pro	Ile	Arg	
	290					295					300					
Ala	Leu	Met	Met	Ser	His	Met	Phe	Ile	Glu	Val	Asp	Asp	Glu	Val	His	
305					310					315					320	

1515

Ala Gln Asp Glu Val Ile Leu Tyr Asn Lys Asp Ile Arg Ile Asp Glu
 325 330 335
 Phe Thr Phe Lys Gly Val Gly Ala Asn Ser Glu Gln Leu Ser Ala Met
 340 345 350
 Asn His Asp Ser Leu Met Lys Glu Tyr Leu
 355 360

<210> 4260
 <211> 47
 <212> PRT
 <213> S.epidermidis

<400> 4260
 Ser Leu Val Asn Met Lys Val Asn Leu Asn Asn Leu Ser Cys Ser Cys
 1 5 10 15
 Leu Phe His Leu Ile Lys Asn Thr Tyr Lys Tyr Ile Phe Lys Trp Asp
 20 25 30
 Glu Tyr Ser Lys Tyr Ser Asn Asp Glu Arg Leu Lys Lys Lys Val
 35 40 45

<210> 4261
 <211> 364
 <212> PRT
 <213> S.epidermidis

<400> 4261
 Leu Arg Ala Asn Gln His Phe Ser Ser Asn Lys Leu Ile Asn Ile Asp
 1 5 10 15
 Leu Thr Leu Glu Gly Thr Leu Val Ile Ser Phe Glu Asn Asp Tyr Leu
 20 25 30
 Glu Gly Ala His Glu Lys Val Leu Asn Arg Leu Val Glu Thr Asn Arg
 35 40 45
 Ile Gln Ala Ala Gly Tyr Gly Phe Asp Asp Phe Ser Ala Gln Ala Ala
 50 55 60
 Asp Lys Ile Arg Gln Arg Ile Asp Cys Pro Asp Ala Thr Ile Arg Phe
 65 70 75 80
 Leu Val Gly Gly Thr Gln Thr Asn Gln Val Val Ile Asn Ser Met Leu
 85 90 95
 Asp Ser Tyr Glu Gly Val Ile Ser Ala Asp Thr Gly His Val Ala Val
 100 105 110
 His Glu Gly Gly Ala Ile Glu Phe Ser Gly His Lys Val Leu Thr Ile
 115 120 125
 Pro Ser Gln Glu Gly Lys Ile Thr Ala Gln Asp Val Glu Asn Tyr Ile
 130 135 140
 Glu Thr Phe Glu Ser Asp Phe Lys Lys Glu His Met Val Tyr Pro Gly
 145 150 155 160
 Met Val Tyr Ile Ser His Pro Thr Glu Tyr Gly Thr Leu Tyr Thr Lys
 165 170 175
 Glu Glu Leu Gln Ser Leu Ser Arg Val Cys Arg Arg His Gln Ile Pro
 180 185 190
 Leu Phe Met Asp Gly Ala Arg Leu Gly Tyr Gly Leu Met Ser Asn Gln
 195 200 205
 Thr Asn Val Thr Ile Glu Asp Val Ala Lys Tyr Cys Asp Val Phe Tyr
 210 215 220
 Ile Gly Gly Thr Lys Ile Gly Ala Leu Cys Gly Glu Ala Ile Val Phe
 225 230 235 240

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Lys Leu Val Thr Phe Ile Phe Gly Lys Arg Arg Arg Leu Lys Trp Val
 165 170 175
 Asn Gln Leu Leu Asn Lys Thr Phe Asn Lys Lys Ile Thr Gln Pro Arg
 180 185 190
 Thr Asp Ser Asp Trp Ile Ser Thr Arg Gln Asp Glu Val Asp Lys Phe
 195 200 205
 Val Glu Asp Glu Phe Cys Gly Phe Lys Val Ser Asn Gln Leu Ile Tyr
 210 215 220
 Gln Thr Leu Lys Thr Met Met Lys Thr Val Glu Arg Gln Gln Leu Lys
 225 230 235 240
 Arg Met Asp Lys Glu Leu Pro Ile Leu Phe Ile Ser Gly Lys Asp Asp
 245 250 255
 Pro Phe Gly Glu Tyr Gly Lys Gly Ile Lys His Leu Ala Arg Leu Tyr
 260 265 270
 Lys Arg Ala Gly Ile Lys His Ile Thr Val Gln Leu Tyr Lys His Lys
 275 280 285
 Arg His Glu Ile Leu Phe Glu Glu Asp Tyr Leu Lys Thr Trp Gln His
 290 295 300
 Met Phe Glu Trp Met Glu Lys Gln Ile Leu Lys Lys Gln Lys
 305 310 315

<210> 4264

<211> 131

<212> PRT

<213> S.epidermidis

<400> 4264

Lys Glu Lys Asn Thr Arg Lys Ser Lys Lys Glu Ile Pro Asp Val Ile
 1 5 10 15
 Arg Ser Gly Lys Ile Lys Leu Asp Ile Asn Pro Glu Lys Gln Asn Arg
 20 25 30
 His Ser Leu Asn His Ser Leu Tyr Leu Lys Asn Lys Asn Phe Ala Leu
 35 40 45
 Lys Asn Asn Glu Arg Leu Pro Ser Tyr Thr Thr Leu Ser Ile Asn Glu
 50 55 60
 Leu Asn Arg Leu Val Gln Gln Tyr Ser Thr Ser Gly Lys Ile Leu Ile
 65 70 75 80
 Asn Lys Asn Gly Phe Asn His Lys Lys Val Ile Asn Phe Glu Arg Ile
 85 90 95
 Ile Gly Lys Ala Phe Ile Asp Gly Lys Tyr Ile Glu Thr Thr Phe Gly
 100 105 110
 Lys Val His Tyr Ser Lys Thr Asp Ser His Ile Ile Pro Phe Ile Ser
 115 120 125
 Lys Glu Lys
 130

<210> 4265

<211> 289

<212> PRT

<213> S.epidermidis

<400> 4265

Gly Gly Lys Asn Val Ser Ser Asn Glu Leu Leu Leu Ala Thr Glu Tyr
 1 5 10 15
 Leu Glu Lys Glu Lys Lys Ile Pro Arg Glu Val Leu Ile Asp Ala Ile
 20 25 30

Glu Ala Ala Leu Ile Thr Ala Tyr Lys Lys Asn Tyr Asp Ser Ala Arg
 35 40 45
 Asn Val Arg Val Glu Leu Asn Met Asp Glu Gly Ser Phe Arg Val Ile
 50 55 60
 Ala Arg Lys Glu Val Val Glu Glu Val Phe Asp Asp Arg Asp Glu Val
 65 70 75 80
 Asp Leu Ser Thr Ala Leu Val Lys Asn Pro Ala Tyr Glu Val Gly Asp
 85 90 95
 Ile Tyr Glu Gln Asp Val Thr Pro Lys Asp Phe Gly Arg Val Gly Ala
 100 105 110
 Gln Ala Ala Lys Gln Ala Val Met Gln Arg Leu Arg Asp Ala Glu Arg
 115 120 125
 Glu Ile Leu Tyr Asp Glu Phe Ile Asp Lys Glu Glu Asp Ile Leu Thr
 130 135 140
 Gly Val Ile Asp Arg Val Asp His Arg Tyr Val Tyr Val Asn Leu Gly
 145 150 155 160
 Arg Ile Glu Ala Val Leu Ser Glu Ala Glu Arg Ser Pro Asn Glu Lys
 165 170 175
 Tyr Ile Pro Asn Glu Arg Ile Lys Val Tyr Val Asn Lys Val Glu Gln
 180 185 190
 Thr Thr Lys Gly Pro Gln Ile Tyr Val Ser Arg Ser His Pro Gly Leu
 195 200 205
 Leu Lys Arg Leu Phe Glu Gln Glu Val Pro Glu Ile Tyr Asp Gly Thr
 210 215 220
 Val Ile Val Lys Ser Val Ala Arg Glu Ala Gly Asp Arg Ser Lys Ile
 225 230 235 240
 Ser Val Tyr Ser Asp Asn Pro Asp Ile Asp Ala Val Gly Ala Cys Val
 245 250 255
 Gly Ser Lys Gly Ala Arg Val Glu Ala Val Val Glu Glu Leu Gly Gly
 260 265 270
 Glu Lys Ile Asp Ile Val Gln Trp Asp Glu Asp Pro Glu Ser Ile Cys
 275 280 285
 Ser

<210> 4266

<211> 51

<212> PRT

<213> S.epidermidis

<400> 4266

Ala Met Lys Lys Glu Cys Ile His Met Pro Ile Ile Tyr Tyr Asp Gly
 1 5 10 15
 Asn Cys Val Tyr Cys Tyr Asn Tyr Ala Ile Trp Leu Ile Gln Asn Gly
 20 25 30
 Leu Ser His Lys Tyr Glu Phe Ala Thr Ile Lys Gly Gln Ile Gly Lys
 35 40 45
 Gln Phe Phe
 50

<210> 4267

<211> 44

<212> PRT

<213> S.epidermidis

<400> 4267

1519

Asn Trp Lys Lys Arg Phe Ala Asn Met Met Met Lys Ser His Phe Val
1 5 10 15
Val Ile Asn Asn Asn Phe Ser Thr Leu Leu Pro Ser Tyr Leu Lys Gln
20 25 30
Ser Cys Phe Leu Phe Leu Phe Tyr Leu Phe Ser Tyr
35 40

<210> 4268

<211> 45

<212> PRT

<213> S.epidermidis

<400> 4268

Ile Ser Arg Asn Leu Thr Ser Ile Glu Val Met His Tyr Glu Cys Thr
1 5 10 15
Leu Ile Thr Thr Phe Tyr Ser Ser Leu Phe Thr Ser Val Ala Ser Asp
20 25 30
Asp Ser Leu Ser Thr Val Lys Val Leu Ile Ala Cys Leu
35 40 45

<210> 4269

<211> 41

<212> PRT

<213> S.epidermidis

<400> 4269

Ile Ile Arg Lys Gly Phe Ile Phe Ile Lys Tyr Phe Gly Glu Thr Leu
1 5 10 15
Glu Gly Thr Gly Gln Ala Glu Asp Tyr Arg Leu Lys Leu Ser Pro Lys
20 25 30
Lys Ala Ser Gln Gln Tyr Glu Val Leu
35 40

<210> 4270

<211> 42

<212> PRT

<213> S.epidermidis

<400> 4270

Ala Ile Arg Asn Leu Ser Tyr Ile His Leu Ile Leu Gly Ser Ser Pro
1 5 10 15
Leu Lys Ile Leu Thr Ile Leu Asp Leu Cys Arg Ile Ile Asn Met Ile
20 25 30
Glu Thr Ile Pro Leu Thr Ala Ser Lys Ile
35 40

<210> 4271

<211> 866

<212> PRT

<213> S.epidermidis

<400> 4271

Met Arg Arg Lys Ala Cys Phe Ile Ile Leu Leu Ile Thr Leu Ser Leu
1 5 10 15
Ile Gly His Ser Tyr Ile Ile Phe Arg Phe His His Asp Gly Val Leu
20 25 30

1519: 4268-4271

Ser	Thr	Gly	Pro	Asn	Asp	Gly	Met	Glu	Gln	Met	Ile	Pro	Ile	Gln	Met
		35					40					45			
Tyr	Leu	Tyr	His	Gln	Trp	Thr	Gln	Gly	Asn	Leu	Phe	Tyr	Ser	Thr	His
	50					55					60				
Leu	Gly	Leu	Gly	Gly	Asp	Phe	Phe	Thr	Asp	Leu	Ser	Tyr	Tyr	Phe	Ser
65					70					75					80
Thr	Asn	Leu	Ile	Phe	Ile	Leu	Asn	Val	Pro	Ile	Ile	Lys	Leu	Cys	Glu
				85					90					95	
Ile	Phe	Phe	Ser	Leu	Asn	Thr	Asn	Gln	Ile	Leu	Leu	Trp	Met	Tyr	Asn
			100					105					110		
Ala	Leu	Ile	Val	Ser	Ile	Ile	Lys	Ser	Thr	Ile	Ala	Leu	Phe	Cys	Thr
		115					120					125			
Tyr	Leu	Phe	Ser	Tyr	Tyr	Ile	Ser	Lys	Asn	Lys	Ile	Ile	Ser	Leu	Leu
	130					135					140				
Ile	Ser	Phe	Ile	Phe	Val	Met	Ser	Pro	Leu	Tyr	Phe	Arg	Phe	Thr	Ile
145					150					155					160
Tyr	Trp	Pro	Phe	Phe	Ser	Asp	Thr	Phe	Ile	Trp	Leu	Pro	Leu	Leu	Leu
				165					170					175	
Leu	Gly	Ile	Glu	Arg	Leu	Leu	Arg	Asp	Phe	Lys	Ala	Gly	Leu	Phe	Ile
			180					185					190		
Leu	Thr	Val	Ser	Leu	Ile	Leu	Ile	Asn	Asn	Phe	Tyr	Phe	Ala	Tyr	Tyr
		195					200					205			
Phe	Leu	Ile	Ile	Gly	Ile	Gly	Tyr	Thr	Leu	Ile	Arg	Ile	Ile	Tyr	Arg
	210					215					220				
His	Pro	Lys	Asp	Ser	Leu	Thr	Arg	Trp	Gln	Ala	Ser	Leu	Thr	Ile	Ile
225					230					235					240
Cys	Ser	Ala	Leu	Leu	Ala	Leu	Gly	Asn	Ser	Met	Phe	Val	Phe	Phe	His
			245						250					255	
Gly	Val	Gln	Ser	Phe	Leu	Asn	Asn	Arg	Arg	Gln	Ser	Phe	Thr	Gly	Gln
			260					265					270		
Val	Asn	Trp	Ile	Glu	His	Leu	Asn	Lys	Asp	Thr	Asn	Ile	Phe	Phe	Asp
		275					280					285			
Asn	Tyr	Leu	Ile	Val	Val	Ile	Phe	Leu	Ser	Ile	Gln	Ala	Leu	Leu	Thr
	290					295					300				
Ile	Lys	Leu	Tyr	Lys	His	Phe	Tyr	Tyr	Lys	Leu	Phe	Ala	Leu	Leu	Leu
305					310					315					320
Leu	Ala	Thr	Ile	Ile	Phe	Ala	Phe	Leu	Pro	Phe	Val	Asp	Gln	Leu	Phe
				325					330				335		
Asn	Gly	Phe	Ser	Ala	Pro	Gln	Lys	Arg	Trp	His	Phe	Ile	Leu	Ala	Phe
			340					345					350		
Asn	Ser	Ser	Ile	Leu	Ile	Gly	Leu	Phe	Val	Lys	Tyr	Phe	Lys	Thr	Ile
		355					360					365			
Arg	Pro	Lys	Thr	Tyr	Ile	Tyr	Thr	Asn	Leu	Ile	Ala	Gln	Ser	Val	Ile
	370					375					380				
Tyr	Ile	Ser	Ser	Ile	Ser	Tyr	Asn	Thr	Phe	Leu	Pro	Trp	Leu	Ser	Leu
385					390					395					400
Val	Pro	Val	Val	Ser	Val	Ile	Gly	Leu	Leu	Ile	Leu	Leu	Ile	Lys	Glu
				405					410					415	
Lys	Lys	Val	Arg	Tyr	Tyr	Leu	Thr	Tyr	Leu	Tyr	Ser	Ile	Ser	Ile	Ala
			420					425				430			
Ala	Leu	Ser	Leu	Met	Ile	Thr	Phe	Val	Phe	Ile	Lys	Asn	Gln	Ile	Phe
		435					440					445			
Phe	Gln	Asp	His	Ile	Asn	Arg	Ala	Asn	Lys	Arg	Tyr	Ile	Asn	Ser	Ser
	450					455					460				
Phe	Tyr	Asn	Ser	Ala	Ile	Gln	Arg	Ser	Leu	Val	Lys	Glu	Met	Asn	Gln
465					470					475					480

[illegible]

<213> S.epidermidis

Ser	Ile	Thr	Leu	Leu	Leu	Lys	Tyr	Ile	Ser	Asp	Tyr	Thr	Thr	Tyr	Lys
1				5					10					15	
Tyr	Phe	Ser	Lys	Tyr	Tyr	Asn	Tyr	Val	Asn	Leu	Ile	Met	Leu	Lys	Thr
			20					25					30		
Phe	Val	Asn	Leu	Leu	Lys	Cys	Ile	Gly	Lys	Val	Lys	Asn	Phe	Lys	Ile
		35					40					45			
Lys	Phe	Asn	Phe	Leu	Ile	Leu	Leu	Pro							
	50					55									

<213> S.epidermidis

Asn 1	Val	Leu	Lys	Lys 5	Ser	Cys	Asp	Glu	Ala 10	Asn	Lys	Ala	Leu	Lys 15	Leu
Tyr	Asn	Leu	Ser	Met 20	Lys	Val	Ser	Arg 25	Glu	Lys	Leu	Leu	Lys 30	Gln	Gln
Leu	Asp	Leu	Ile	Val 35	Lys	Asp	Ser	Ala 40	Leu	Asp	Ile	His 45	Asp	Glu	Ile
Glu	Asn	Lys	Leu	Val 50	Asp	Arg	Glu	Val 55	Glu	Arg	Gln 60	Ala	His	Ile	Leu
Gly 65	Glu	His	Val	Lys 70	Ile	Asp	Asp	Thr	Glu	Val	Lys 75	Ala	Val	Val	Asn 80
Ser	Asn	Phe	Lys	Gly 85	Val	Asn	Trp	Ser	Thr 90	Arg	Leu	Cys	Gln	Asp 95	Met
Ala	Val	Val	Gln 100	Lys	Glu	Val	Glu	Lys 105	Thr	Thr	Ser	Asn	Val 110	Leu	Leu
Arg	Gly	Arg	His 115	Pro	Asn	Glu	Tyr	Val 120	Ala	Lys	Phe	Lys 125	Lys	Gln	Thr
Asn	Thr	Thr	Thr 130	Tyr	Asn	Ala	Ser	Arg 135	Leu	Leu	Val 140	Thr	Glu	Ser	Ala
Cys 145	Val	Gln	Ala	Glu 150	Ser	Gln	Lys	Leu	Thr	Tyr	Leu	Lys 155	Asp	Leu	Gly 160
Glu	Asp	Gly	Glu	Tyr 165	Lys	Tyr	Val	Ala	Lys 170	Ile	Asp	Lys	Lys	Thr	Ser
Lys	Ile	Cys	His	Ser 175	Leu	Asn	Gly	Lys	Val	Phe	Lys	Val	Lys	Asp	Met

			180					185					190				
Met	Pro	Gly	Val	Asn	Ala	Pro	Pro	Met	His	Pro	Trp	Cys	Arg	Ser	Thr		
		195					200					205					
Thr	Val	Thr	His	Val	Gly	Asn	Trp	Arg	Asp	Arg	Phe	Phe	Thr	Glu	Arg		
	210					215					220						
Lys	Gly	Lys	Tyr	Gln	Thr	Glu	Asn	Lys	Glu	Ser							
225					230					235							

<210> 4275

<211> 423

<212> PRT

<213> S.epidermidis

<400> 4275

Leu	Ile	Met	Asn	Ser	Ser	Ser	Gln	Glu	Lys	Lys	Asn	Lys	Lys	Phe	Ser		
1			5						10					15			
Ser	Val	Phe	Ile	Tyr	Ser	Ser	Ile	Ile	Ala	Ala	Ile	Val	Val	Ile	Ile		
		20						25				30					
Gly	Ala	Val	Trp	Pro	Glu	Lys	Phe	Asp	Ser	Val	Thr	Asn	Thr	Ala	Lys		
	35						40					45					
Met	Trp	Ile	Thr	Asn	Asn	Leu	Gly	Trp	Tyr	Tyr	Leu	Ile	Leu	Thr	Thr		
	50					55					60						
Val	Ile	Val	Phe	Phe	Cys	Val	Phe	Leu	Ile	Phe	Ser	Pro	Ile	Gly	Lys		
65					70					75					80		
Leu	Lys	Leu	Gly	Lys	Pro	Asn	Asp	Lys	Pro	Glu	Phe	Asn	Thr	Ile	Ser		
				85				90					95				
Trp	Phe	Ala	Met	Leu	Phe	Ser	Ala	Gly	Met	Gly	Ile	Gly	Leu	Val	Phe		
		100						105					110				
Tyr	Gly	Ala	Ala	Glu	Pro	Met	Ala	His	Phe	Ala	Ala	Pro	Pro	Thr	Ala		
	115						120					125					
Asp	Pro	Glu	Thr	Thr	Lys	Ala	Tyr	Thr	Glu	Ser	Leu	Arg	Ser	Thr	Phe		
	130					135					140						
Phe	His	Trp	Gly	Phe	His	Ala	Trp	Ala	Ile	Tyr	Gly	Val	Val	Ala	Leu		
145					150					155					160		
Ala	Leu	Ala	Tyr	Ser	Gln	Phe	Arg	Lys	Gly	Glu	Pro	Gly	Leu	Ile	Ser		
				165					170					175			
Arg	Thr	Leu	Arg	Pro	Leu	Leu	Gly	Asp	Lys	Val	Glu	Gly	Pro	Ile	Gly		
		180						185					190				
Thr	Leu	Ile	Asp	Val	Leu	Ser	Val	Phe	Ala	Thr	Leu	Val	Gly	Val	Ala		
	195						200					205					
Val	Ser	Leu	Gly	Met	Gly	Ala	Leu	Gln	Ile	Asn	Gly	Gly	Leu	His	Tyr		
	210					215					220						
Leu	Phe	Gly	Val	Pro	Asn	Asn	Thr	Phe	Val	Gln	Gly	Ile	Ile	Ile	Val		
225					230					235					240		
Val	Val	Thr	Ile	Leu	Phe	Ile	Ala	Ser	Ala	Trp	Ser	Gly	Leu	Ser	Lys		
				245					250					255			
Gly	Ile	Gln	Tyr	Leu	Ser	Asn	Leu	Asn	Ile	Gly	Leu	Gly	Thr	Ile	Leu		
		260						265					270				
Met	Ile	Val	Thr	Leu	Ile	Val	Gly	Pro	Thr	Val	Leu	Ile	Leu	Asn	Met		
	275						280					285					
Met	Thr	Ser	Ser	Thr	Gly	Ser	Leu	Leu	Asn	Ser	Phe	Leu	Phe	Asn	Ser		
	290					295					300						
Phe	Asp	Thr	Ala	Ala	Leu	Asn	Gly	Gln	Lys	Arg	Asp	Trp	Met	Ser	Thr		
305					310					315					320		
Trp	Thr	Leu	Tyr	Tyr	Trp	Gly	Trp	Trp	Leu	Ser	Trp	Ser	Pro	Phe	Val		
				325					330					335			

Gly Val Phe Ile Ala Arg Val Ser Lys Gly Arg Ser Ile Arg Glu Phe
 340 345 350
 Ile Ser Gly Val Leu Leu Val Pro Ala Leu Val Ser Phe Ile Trp Phe
 355 360 365
 Ser Val Phe Gly Val Leu Gly Ile Glu Ala Gly Lys Lys Asp Ser Gly
 370 375 380
 Leu Phe Lys Met Ser Pro Glu Thr Gln Leu Phe Gly Val Phe Asn His
 385 390 395 400
 Ile Pro Leu Gly Ile Val Leu Ser Ile Ile Ala Leu Leu Leu Ile Ala
 405 410 415
 Ser Leu Leu Cys Tyr Phe Ser
 420

<210> 4276

<211> 256

<212> PRT

<213> S.epidermidis

<400> 4276

Leu Ile Met Asn Phe Ile Phe Asp Ile Asp Gly Thr Ile Cys Phe Asp
 1 5 10 15
 Gly Cys Ser Ile Asp Ser Ser Ile Lys Gln Arg Leu Phe Lys Leu Arg
 20 25 30
 Gln Ala Asn His Asn Val Ile Phe Ala Ser Ala Arg Pro Ile Arg Asp
 35 40 45
 Leu Leu Pro Val Ile Pro Glu Phe Ala Asp Asp Thr Leu Ile Gly Gly
 50 55 60
 Asn Gly Ser Ile Ile Ser Lys Asn Gly Gln Ile Glu Ile Val Ser Val
 65 70 75 80
 Ile Asn Glu His Asp Ile Ser Leu Ile Lys Lys Ile Ile Lys Lys Tyr
 85 90 95
 Gln Leu Ser Tyr Ile Ile Asp Asp Lys Phe Asn Tyr Ala Ser Asn Leu
 100 105 110
 Asp Ser Asn Asn Glu Leu Tyr Gln Arg Ile Asp Pro Asp Gly Lys Ala
 115 120 125
 Gln Ser Leu Asp Met Asp Glu Ile Arg Asn Pro Ile Lys Ala Ile Leu
 130 135 140
 Leu Asn Ile Asp Asn Lys Asp Phe Asp Met Ile Ala His Gln Leu Val
 145 150 155 160
 Ser Gln Ser His Gly Ile Glu Leu Ile Arg His Tyr Ser Glu Ser Tyr
 165 170 175
 Ile Asp Val Thr Ala Arg Gly Val Asp Lys Tyr Thr Thr Ile Gln Tyr
 180 185 190
 Ile Leu Gly Thr Asn Ser Asp Tyr Ile Ala Phe Gly Asn Asp His Asn
 195 200 205
 Asp Val His Met Leu Glu His Ala Ser Gln Gly Tyr Phe Val Thr Asn
 210 215 220
 Gln Phe Ile Glu His Thr Ser Phe Phe Lys Asn Lys Asn Ile Thr Val
 225 230 235 240
 Ile Asp Asp Thr Ile Tyr Ala Ile Cys Glu Val Leu Asp Arg Tyr Leu
 245 250 255

<210> 4277

<211> 242

<212> PRT

<213> S.epidermidis

<400> 4277

Thr Ile Met Asn Ile Leu Leu Ile Gly Tyr Gly Ala Met Asn Gln Arg
 1 5 10 15
 Val Ala Arg Leu Ala Glu Asp Lys Gly His Glu Ile Val Gly Val Ile
 20 25 30
 Asp Arg Thr Ser Lys Ala Ser Thr Pro Tyr Ser Gln Tyr Gln His Ile
 35 40 45
 Ser Glu Cys Lys Glu Ala Asp Val Ala Ile Asp Phe Ser Asn Pro Glu
 50 55 60
 Leu Leu Phe Pro Leu Leu Glu Glu Gln Phe Asn Leu Pro Leu Val Ile
 65 70 75 80
 Ala Thr Thr Gly Glu Lys Glu Thr Leu Ile Gln Lys Leu Glu Thr Leu
 85 90 95
 Ser Gln Arg Thr Pro Val Phe Phe Ser Ala Asn Met Ser Tyr Gly Val
 100 105 110
 His Ala Leu Thr Lys Ile Leu Glu Thr Ala Val Pro Leu Leu Gln Asp
 115 120 125
 Phe Asp Ile Glu Leu Thr Glu Ala His His Asn Lys Lys Val Asp Ala
 130 135 140
 Pro Ser Gly Thr Leu Val Lys Leu Tyr Asp Val Ile Lys Glu Leu Arg
 145 150 155 160
 Asp Asn Val Ser Pro Val Tyr Asp Arg His Glu Lys Thr Glu Lys Arg
 165 170 175
 Thr His Asp Glu Ile Gly Ile His Ala Val Arg Gly Gly Thr Ile Val
 180 185 190
 Gly Glu His Asp Ile Leu Phe Ala Gly Thr Asp Glu Thr Ile Thr Ile
 195 200 205
 Ser His Lys Ala Gln Ser Lys Asp Ile Phe Ala Asn Gly Ala Ile Gly
 210 215 220
 Ala Ala Glu Lys Leu Ile His Lys Asn Pro Gly Phe Tyr Thr Phe Asn
 225 230 235 240
 Asn Leu

<210> 4278

<211> 41

<212> PRT

<213> S.epidermidis

<400> 4278

Thr Phe Val Asn Phe Tyr Glu Ser Pro Ile Ile Cys Val Ala Asn Ser
 1 5 10 15
 Asp Ile Val Thr Phe Tyr Glu Asn Asn Phe Ile Glu Asn Lys Ile Asn
 20 25 30
 Phe Thr Lys Cys Ser His Leu Phe Val
 35 40

<210> 4279

<211> 410

<212> PRT

<213> S.epidermidis

<400> 4279

Gly Val Val Asn Leu Met Lys Asn Glu Lys Glu Ile Asn Gly Lys Lys
 1 5 10 15

Ser His Phe Phe Ser Leu Ser Glu Ser Arg Phe Met Arg Phe Leu Gly
 20 25 30
 Gly Asn Asp Leu Ile Tyr Ala Leu Ile Ala Leu Val Leu Leu Gly Ile
 35 40 45
 Val Ile Phe Ile Phe Asp Lys Ile Ser Tyr Val Phe Gln Pro Phe Ile
 50 55 60
 Ile Val Phe Asn Thr Ile Ala Ala Pro Ile Ile Val Ser Leu Val Leu
 65 70 75 80
 Phe Tyr Leu Phe Asn Pro Ile Val Asn Met Met Glu Arg Tyr Arg Ile
 85 90 95
 Pro Arg Leu Leu Gly Ile Thr Ile Ile Tyr Val Ala Ile Val Gly Ile
 100 105 110
 Ile Thr Leu Ile Val Asn Leu Leu Ile Pro Ile Ile Gly Ser Gln Ile
 115 120 125
 Glu Ser Phe Ile Lys Asn Thr Pro Asn Tyr Leu His Lys Ile Thr Arg
 130 135 140
 Ser Leu Asp Lys Leu Asn Asn Thr Ile Leu Ser Gly Tyr Met Gly
 145 150 155 160
 Gln Val Asn Glu Trp Leu Glu Ser Ala Gln Lys Lys Ile Pro Ser Met
 165 170 175
 Val Ser Asp Tyr Ser Asp Gly Phe Gly Ser Lys Leu Ala Thr Phe Ala
 180 185 190
 Glu Ala Val Ala Asn Ile Gly Ile Val Ile Gly Thr Thr Pro Phe Val
 195 200 205
 Leu Phe Phe Met Leu Lys Asp Gly His Lys Phe Lys Asp Tyr Thr Thr
 210 215 220
 Lys Ile Met Pro Pro Lys Phe Arg Lys Asp Phe His Asp Leu Leu Glu
 225 230 235 240
 Lys Met Ser Val Gln Val Gly Ser Tyr Ile Gln Gly Gln Ile Ile Val
 245 250 255
 Ser Phe Cys Ile Gly Leu Leu Leu Phe Ile Gly Tyr Ser Ile Ile Gly
 260 265 270
 Leu Lys Tyr Ala Leu Val Leu Ala Ser Ile Ala Ala Val Thr Ser Val
 275 280 285
 Val Pro Tyr Leu Gly Pro Thr Ile Ala Ile Ser Pro Ala Ile Val Ile
 290 295 300
 Ala Ile Ile Thr Ser Pro Leu Met Leu Leu Lys Leu Ala Val Val Trp
 305 310 315 320
 Thr Leu Val Gln Phe Phe Glu Gly His Phe Ile Ser Pro Asn Val Met
 325 330 335
 Gly Lys Thr Leu Lys Ile His Pro Leu Thr Ile Ile Phe Ile Leu Leu
 340 345 350
 Cys Ala Gly Asn Leu Met Gly Ile Val Gly Val Ile Ile Gly Ile Pro
 355 360 365
 Leu Tyr Ala Val Leu Lys Val Leu Val Ser His Ile Phe Met Leu Phe
 370 375 380
 Lys Arg Arg Tyr Asn Arg Tyr Tyr Gly Asn Asp Ala Gly Glu Tyr Ile
 385 390 395 400
 Ile Thr Glu Glu Glu Lys Gly Ile Lys Gln
 405 410

<210> 4280

<211> 90

<212> PRT

<213> S.epidermidis

<400> 4280

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Tyr Met Ala Lys Lys Ser Lys Ile Ala Lys Glu Gln Lys Arg Gln Glu
1          5          10          15
Leu Val Asn Lys Tyr Tyr Glu Leu Arg Lys Glu Leu Lys Ala Lys Gly
          20          25          30
Asp Tyr Glu Ala Leu Arg Lys Leu Pro Arg Asp Ser Ser Pro Thr Arg
          35          40          45
Leu Thr Arg Arg Cys Lys Val Thr Gly Arg Pro Arg Gly Val Leu Arg
          50          55          60
Lys Phe Glu Met Ser Arg Ile Ala Phe Arg Glu His Ala His Lys Gly
65          70          75          80
Gln Ile Pro Gly Val Lys Lys Ser Ser Trp
          85          90

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<210> 4281

<211> 175

<212> PRT

<213> S.epidermidis

<400> 4281

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Leu Arg Gln Lys Ser Gly His Lys Pro Ala Leu Phe Tyr Leu Pro Lys
1          5          10          15
Lys Glu Ala Cys Met Ser Lys Ile Thr Glu Gln Val Glu Ala Leu Ile
          20          25          30
Gln Pro Val Leu Asn Asp Leu Asn Phe Glu Leu Val Asp Ile Glu Tyr
          35          40          45
Val Lys Glu Gly Lys Asp His Phe Leu Arg Ile Ser Ile Asp Lys Glu
          50          55          60
Gly Gly Val Asp Leu Asn Asp Cys Thr Ile Ala Ser Glu Lys Ile Ser
65          70          75          80
Glu Val Met Asp Glu Asn Asp Pro Ile Pro Glu Met Tyr Tyr Leu Asp
          85          90          95
Val Ala Ser Pro Gly Ala Glu Arg Pro Ile Lys Lys Glu Thr Asp Phe
          100          105          110
Tyr Asn Ala Ile Asn Gln Pro Ile Phe Val Ser Leu Tyr Ala Pro Ile
          115          120          125
Glu Gly Asp Lys Glu Trp Leu Gly Val Leu Lys Ser Val Asn Asp Glu
          130          135          140
Ser Ile Asn Met Glu Val Lys Glu Lys Ala Lys Thr Lys Glu Ile Glu
145          150          155          160
Ile Pro Arg Asn Lys Ile Ala Lys Ala Arg His Ala Val Met Ile
          165          170          175

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<210> 4282

<211> 303

<212> PRT

<213> S.epidermidis

<400> 4282

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Ile Lys Glu Asn Arg Met Ala Leu Asp Lys Asp Ile Val Gly Ser Ile
1          5          10          15
Glu Phe Leu Glu Val Val Gly Leu Gln Gly Ser Thr Tyr Leu Leu Lys
          20          25          30
Gly Pro Asn Gly Glu Ser Val Lys Leu Asn Gln Ser Glu Val Ala Asp
          35          40          45
Glu Asp Asn Phe Glu Leu Gly Glu Glu Tyr Ser Phe Phe Val Tyr Pro

```

50		55		60
Asn Arg Ser Gly Asp	Leu Phe Ala Thr Gln	Asn Met Pro Asp Ile Thr		
65	70	75		80
Lys Asp Lys Tyr Asp	Phe Ala Lys Val Ile	Lys Thr Asp Arg Asp Gly		
	85	90		95
Ala His Ile Asp Val	Gly Leu Pro Arg Glu	Val Leu Val Pro Trp Glu		
	100	105		110
Asp Leu Pro Lys Leu	Lys Glu Leu Trp Pro	Lys Ala Gly Asp Tyr Leu		
	115	120		125
Leu Val Thr Leu Arg	Ile Asp Ser Thr Asn	Gln Met Phe Gly Arg Leu		
	130	135		140
Ala Ser Glu Thr Ile	Val Glu Ser Met Phe	Thr Pro Val Asn Asp Asp		
	145	150		155
145	150	155		160
Ser Lys Gln Asn Glu	Tyr Ile Ser Ala Arg	Ala Tyr Arg Leu Leu Arg		
	165	170		175
Val Gly Ser Phe Leu	Leu Ser Asn Glu Gly	Tyr Lys Ile Phe Val His		
	180	185		190
Glu Ser Glu Arg Lys	His Glu Pro Arg Leu	Gly Glu Ala Val Glu Val		
	195	200		205
Arg Ile Ile Gly His	Asn Glu Lys Gly Glu	Leu Asn Gly Ser Phe Leu		
	210	215		220
Pro Leu Ala His Glu	Arg Leu Asp Asp Asp	Gly Gln Val Ile Phe Asp		
	225	230		235
225	230	235		240
Leu Leu Val Glu Tyr	Asp Gly Glu Leu Pro	Phe Trp Asp Lys Ser Ser		
	245	250		255
Pro Asp Ala Ile Lys	Glu Val Phe Asn Met	Ser Lys Gly Ser Phe Lys		
	260	265		270
Arg Ala Ile Gly His	Leu Tyr Lys Lys Lys	Ile Ile Asn Ile Glu Thr		
	275	280		285
275	280	285		290
Gly Lys Ile Thr Leu	Thr Lys Lys Gly Trp	Ser Arg Val Asp Asp		
	290	295		300

<210> 4283

<211> 463

<212> PRT

<213> S.epidermidis

<400> 4283

Lys Gly Arg Lys Ile	Met Lys Val Ala Lys	Phe Gly Gly Ser Ser Val
1	5	10
15		
Ser Thr Ala Glu Gln	Ile Lys Lys Val Leu	Thr Ile Val Asn Glu Asp
	20	25
30		
Pro Glu Arg Lys Ile	Ile Ile Val Ser Ala	Pro Gly Lys Arg His Asn
	35	40
45		
Asp Asp Ile Lys Thr	Thr Asp Leu Leu Ile	Arg Leu Tyr Glu Lys Val
	50	55
60		
Leu Asn Lys Leu Asn	Tyr Glu Ser Lys Lys	Gln Glu Ile Ile Gln Arg
	65	70
80		
Tyr Ala Asp Ile Val	Glu Glu Leu Gly Ile	Gly Asn Asp Ile Leu Ile
	85	90
95		
Thr Ile Asn Asp Thr	Leu Glu Glu Tyr Ile	Lys His Leu Ser Asp Lys
	100	105
110		
Pro Asn Arg Leu Tyr	Asp Ala Leu Leu Ser	Cys Gly Glu Asn Phe Asn
	115	120
125		
Ala Gln Leu Ile Ala	Gln Tyr Asn Asn Ser	Gln Gly Ile Pro Thr Arg
	130	135
140		

Tyr Ile Ser Pro Lys Glu Ala Gly Leu Thr Val Thr Asp Leu Pro Gln
 145 150 155 160
 Gln Ala Gln Ile Leu Asp Ser Ala Tyr Asn Glu Ile Tyr Lys Leu Arg
 165 170 175
 Asp Tyr Asp Glu Lys Leu Ile Ile Pro Gly Phe Phe Gly Val Ser Lys
 180 185 190
 Gln Asn Tyr Ile Val Thr Phe Pro Arg Gly Gly Ser Asp Ile Thr Gly
 195 200 205
 Ala Ile Ile Ala Arg Gly Val Arg Ala Ser Leu Tyr Glu Asn Phe Thr
 210 215 220
 Asp Val Ser Gly Ile Tyr Lys Ala Asn Pro Asn Ile Ile Asn Asn Pro
 225 230 235 240
 Glu Leu Ile Glu Glu Ile Thr Tyr Arg Glu Met Arg Glu Leu Ser Tyr
 245 250 255
 Ala Gly Phe Gly Val Phe His Asp Glu Ala Leu Gln Pro Leu Tyr Lys
 260 265 270
 Asp Arg Ile Pro Val Val Ile Lys Asn Thr Asn Arg Pro Asn Asp Lys
 275 280 285
 Gly Thr Tyr Ile Leu His Asp Arg Glu Ile Asp Ser Lys Asn Val Ile
 290 295 300
 Ser Gly Ile Ser Cys Asp Lys Gly Phe Thr Val Ile Asn Ile Lys Lys
 305 310 315 320
 Tyr Leu Met Asn Arg Leu Val Gly Phe Thr Arg Lys Ile Leu Gly Val
 325 330 335
 Leu Glu Glu Phe Asn Ile Ser Phe Asp His Met Pro Ser Gly Ile Asp
 340 345 350
 Asn Ile Ser Ile Ile Met Arg Thr Asn Gln Ile Gln Gly Lys Glu Ser
 355 360 365
 Gln Val Leu Asn Ala Ile Arg Lys Arg Cys Glu Val Asp Glu Leu Ser
 370 375 380
 Ile Asp His Asp Leu Ala Val Leu Met Ile Val Gly Glu Gly Met Asn
 385 390 395 400
 Gln Val Val Gly Thr Ala Ser Lys Ile Thr His Ala Leu Ser Glu Ser
 405 410 415
 Asn Ile Asn Leu Ile Met Ile Asn Gln Gly Ala Ser Glu Ile Ser Met
 420 425 430
 Met Phe Gly Ile His Glu Ala Asp Ala Glu Lys Ala Val Leu Ser Thr
 435 440 445
 Tyr Glu Phe Cys Tyr Asn Gly Val Cys Leu Lys Asn Leu Cys Lys
 450 455 460

<210> 4284

<211> 95

<212> PRT

<213> S.epidermidis

<400> 4284

Leu Arg Arg Lys Leu Ile Met Ala Ile Ser Gln Gln Arg Lys Asp Glu
 1 5 10 15
 Leu Ile Lys Glu Tyr Arg Val His Glu Thr Asp Thr Gly Ser Pro Glu
 20 25 30
 Val Gln Ile Ala Val Leu Thr Ala Glu Ile Thr Ala Leu Asn Glu His
 35 40 45
 Leu Arg Glu His Lys Lys Asp His His Ser Arg Arg Gly Leu Leu Lys
 50 55 60
 Met Val Gly Arg Arg Arg His Leu Leu Asn Tyr Leu Arg Ser Lys Asp

65					70					75				80
Ile	Gln	Arg	Tyr	Arg	Glu	Leu	Ile	Lys	Ser	Leu	Gly	Ile	Arg	Arg
				85					90					95

<210> 4285

<211> 573

<212> PRT

<213> S.epidermidis

<400> 4285

Ile	Gly	Arg	Lys	Lys	Arg	Met	Lys	Gln	Ser	Lys	Val	Phe	Ile	Pro	Thr
1				5					10					15	
Met	Arg	Glu	Val	Pro	Ala	Glu	Ala	Glu	Ala	Leu	Ser	His	Arg	Leu	Leu
			20					25					30		
Leu	Lys	Ala	Gly	Leu	Ile	Lys	Gln	Ser	Thr	Ser	Gly	Ile	Tyr	Ser	Tyr
		35					40					45			
Leu	Pro	Leu	Ala	Thr	Arg	Val	Leu	Asn	Asn	Ile	Ser	Lys	Ile	Ile	Arg
	50					55					60				
Glu	Glu	Met	Glu	Ser	Ile	Asp	Ala	Val	Glu	Ile	Leu	Met	Pro	Ala	Leu
65					70					75					80
Gln	Gln	Ala	Glu	Leu	Trp	Glu	Glu	Ser	Gly	Arg	Trp	Ser	Ala	Tyr	Gly
				85					90					95	
Pro	Glu	Leu	Met	Arg	Leu	Lys	Asp	Arg	Asn	Gly	Arg	Glu	Phe	Ala	Leu
			100					105					110		
Gly	Pro	Thr	His	Glu	Glu	Val	Val	Thr	Ser	Leu	Val	Arg	Asp	Glu	Leu
		115				120						125			
Lys	Ser	Tyr	Lys	Gln	Leu	Pro	Leu	Thr	Leu	Phe	Gln	Ile	Gln	Ser	Lys
	130					135					140				
Tyr	Arg	Asp	Glu	Lys	Arg	Pro	Arg	Phe	Gly	Leu	Leu	Arg	Gly	Arg	Glu
145					150					155					160
Phe	Leu	Met	Lys	Asp	Ala	Tyr	Ser	Phe	His	Ser	Asp	Glu	Ala	Ser	Leu
			165						170					175	
Asp	Ala	Thr	Tyr	Gln	Asp	Met	Tyr	Gln	Ala	Tyr	Ser	Arg	Ile	Phe	Lys
			180					185					190		
Arg	Val	Gly	Ile	Asn	Ala	Arg	Pro	Val	Val	Ala	Asp	Ser	Gly	Ala	Ile
		195					200					205			
Gly	Gly	Ser	His	Thr	His	Glu	Phe	Met	Ala	Leu	Ser	Glu	Ile	Gly	Glu
	210					215					220				
Asp	Thr	Ile	Val	Tyr	Ser	Asn	Glu	Ser	Asp	Tyr	Ala	Ala	Asn	Ile	Glu
225					230					235					240
Lys	Ala	Glu	Val	Val	Tyr	His	Pro	Ser	His	Lys	His	Ser	Ala	Leu	Ala
			245						250					255	
Glu	Leu	Thr	Lys	Val	Glu	Thr	Pro	Asn	Val	Lys	Thr	Ala	Gln	Glu	Val
			260					265					270		
Ala	Glu	Tyr	Leu	Lys	Arg	Pro	Leu	Asp	Glu	Ile	Val	Lys	Thr	Met	Ile
		275					280					285			
Phe	Lys	Ile	Asp	Gly	Glu	Phe	Ile	Met	Phe	Leu	Val	Arg	Gly	His	His
	290					295					300				
Glu	Leu	Asn	Glu	Val	Lys	Leu	Lys	Ser	Tyr	Phe	Gly	Thr	Glu	His	Val
305					310					315					320
Glu	Met	Ala	Thr	Pro	Asp	Glu	Ile	Val	Asn	Leu	Val	Asp	Ala	Asn	Pro
			325						330					335	
Gly	Ser	Leu	Gly	Pro	Ile	Phe	Asp	Lys	Asp	Ile	Lys	Ile	Tyr	Ala	Asp
		340					345						350		
Asn	Tyr	Leu	Gln	Asp	Leu	Asn	Asn	Phe	Val	Val	Gly	Ala	Asn	Glu	Asp
		355				360						365			

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His Tyr His Tyr Ile Asn Val Asn Ile Gly Arg Asp Phe Asp Val Thr
 370 375 380
 Glu Tyr Gly Asp Phe Arg Phe Ile Thr Gln Gly Glu Met Leu Ser Asp
 385 390 395 400
 Gly Ser Gly Val Ala Gln Phe Ala Glu Gly Ile Glu Val Gly Gln Val
 405 410 415
 Phe Lys Leu Gly Thr Lys Tyr Ser Glu Ser Met Asn Ala Thr Phe Leu
 420 425 430
 Asp Asn Gln Gly Lys Ala Gln Pro Leu Ile Met Gly Cys Tyr Gly Ile
 435 440 445
 Gly Val Ser Arg Thr Leu Ser Ala Ile Val Glu Gln Asn Asn Asp Glu
 450 455 460
 Asn Gly Ile Ile Trp Pro Lys Ser Val Thr Pro Phe Asp Ile His Leu
 465 470 475 480
 Ile Thr Ile Asn Pro Lys Lys Asp Asp Gln Arg Thr Leu Gly Asp Gln
 485 490 495
 Leu Tyr Gln Lys Leu Met Asp Ser Tyr Asp Val Leu Tyr Asp Asp Arg
 500 505 510
 Lys Glu Arg Ala Gly Val Lys Phe Asn Asp Ser Asp Leu Ile Gly Leu
 515 520 525
 Pro Val Arg Val Val Val Gly Lys Arg Ala Glu Glu Gly Ile Val Glu
 530 535 540
 Val Lys Gln Arg Ile Asn Gly Leu Ser Glu Glu Val Gln Ile Asp Glu
 545 550 555 560
 Leu Glu Tyr Tyr Leu Gln Glu Leu Phe Lys Asn Ile Lys
 565 570

<210> 4286

<211> 326

<212> PRT

<213> S.epidermidis

<400> 4286

Thr Met Gly Lys Ile Lys Glu Leu Glu Thr Ser Leu Ala Asn Lys Ile
 1 5 10 15
 Ala Ala Gly Glu Val Val Glu Arg Pro Ser Ser Val Val Lys Glu Leu
 20 25 30
 Leu Glu Asn Ala Ile Asp Ala Gln Ala Thr Glu Ile Asn Ile Glu Val
 35 40 45
 Glu Gln Ser Gly Val Ser Ser Ile Arg Val Val Asp Asn Gly Thr Gly
 50 55 60
 Ile Ala Gln Glu Asp Leu Gly Leu Val Phe His Arg His Ala Thr Ser
 65 70 75 80
 Lys Ile Val Ala Asp Asp Asp Leu Phe His Ile Arg Thr Leu Gly Phe
 85 90 95
 Arg Gly Glu Ala Leu Ala Ser Ile Ser Ser Val Ala Lys Val Thr Leu
 100 105 110
 Lys Thr Cys Thr Asp Asn Glu Asn Gly His Glu Ile Tyr Ala Glu Asp
 115 120 125
 Gly Lys Ile Ile His Gln Lys Pro Ala Lys Ala Lys Lys Gly Thr Asp
 130 135 140
 Ile Gln Val Asp Ser Leu Phe Tyr Asn Thr Pro Ala Arg Leu Lys Tyr
 145 150 155 160
 Ile Lys Ser Leu Tyr Thr Glu Leu Gly Lys Ile Thr Asp Ile Val Asn
 165 170 175
 Arg Met Ala Met Ser His Pro Glu Ile Arg Ile Ser Leu Val Ser Asp

			180					185					190				
Gly	Lys	Lys	Leu	Leu	Ser	Thr	Asn	Gly	Ser	Gly	Arg	Thr	Asn	Glu	Val		
		195					200					205					
Met	Ala	Glu	Ile	Tyr	Gly	Met	Lys	Val	Ala	Lys	Asp	Leu	Val	His	Ile		
	210				215						220						
Ser	Gly	Asp	Thr	Ser	Asp	Tyr	His	Leu	Glu	Gly	Phe	Val	Ala	Lys	Pro		
225					230					235					240		
Glu	His	Ser	Arg	Ser	Asn	Lys	His	Tyr	Ile	Ser	Ile	Phe	Ile	Asn	Gly		
			245						250					255			
Arg	Tyr	Ile	Lys	Asn	Phe	Val	Leu	Asn	Lys	Ala	Ile	Leu	Glu	Gly	Tyr		
		260						265					270				
His	Thr	Leu	Leu	Thr	Ile	Gly	Arg	Phe	Pro	Ile	Cys	Tyr	Ile	Asn	Ile		
	275					280						285					
Gln	Met	Asp	Pro	Ile	Leu	Val	Asp	Val	Asn	Val	His	Pro	Thr	Lys	Leu		
	290					295					300						
Glu	Val	Arg	Leu	Ser	Lys	Glu	Asp	Gln	Leu	Tyr	Asp	Leu	Ile	Val	Thr		
305					310					315					320		
Lys	Ile	Arg	Glu	Gly	Phe												
			325														

<210> 4287
 <211> 164
 <212> PRT
 <213> S.epidermidis

<400> 4287																	
Val	Lys	Val	Glu	Arg	Arg	Ile	Ile	Pro	Met	Ile	Tyr	Ser	Leu	Thr	Glu		
1			5					10					15				
Ile	Glu	Ala	Arg	Tyr	Gln	Glu	Thr	Asp	Lys	Met	Gly	Val	Ile	Tyr	His		
		20						25				30					
Gly	Asn	Tyr	Ala	Thr	Trp	Phe	Glu	Val	Ala	Arg	Thr	Asp	Tyr	Ile	Arg		
	35					40						45					
Lys	Leu	Gly	Phe	Ser	Tyr	Ala	Ser	Met	Glu	Glu	Gln	Gly	Val	Ile	Ser		
	50					55					60						
Pro	Val	Val	Asp	Leu	Lys	Val	Gln	Tyr	Lys	Lys	Ser	Ile	Tyr	Tyr	Pro		
65					70					75					80		
Glu	Lys	Val	Thr	Val	Lys	Thr	Trp	Val	Glu	Lys	Tyr	Ser	Arg	Leu	Arg		
			85						90					95			
Ser	Thr	Tyr	Cys	Tyr	Lys	Val	Tyr	Asn	Glu	Asn	Gly	Glu	Leu	Ala	Thr		
		100						105					110				
Thr	Gly	Ser	Thr	Glu	Leu	Ile	Cys	Ile	Lys	Ala	Asp	Thr	Phe	Lys	Pro		
		115					120						125				
Ile	Arg	Leu	Asp	Arg	Tyr	Phe	Pro	Glu	Trp	His	Glu	Thr	Tyr	Ser	Lys		
	130					135					140						
Val	Asn	Gln	Leu	Asn	Lys	Glu	Gly	Lys	Asp	Ala	Glu	Val	Thr	Phe	Gly		
145					150					155					160		
Ile	Asn	His	Leu														

<210> 4288
 <211> 82
 <212> PRT
 <213> S.epidermidis

<400> 4288
 Gln Arg Val Glu Lys Glu Tyr Ser Pro Ser Leu Met Thr Ser Leu Phe

```

1           5           10           15
Thr Glu Ser Asn Pro Leu Thr His Lys Glu Gln Val Val Leu Arg Glu
                20                25                30
Ile Gly Asn Gly Leu Ser Ser Lys Glu Ile Ala Ser Lys Leu Tyr Leu
                35                40                45
Ser Asn Gly Thr Val Arg Asn Tyr Thr Ser Thr Ile Ile Asp Lys Met
                50                55                60
Asn Ser Asp His Arg Phe Glu Ala Trp Lys Lys Ala Asn Glu Lys Gly
65                70                75                80
Trp Ile

```

<210> 4289

<211> 43

<212> PRT

<213> S.epidermidis

<400> 4289

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Cys Phe Asn Glu Leu Tyr Glu Asn Ala Phe Ile Leu Tyr Ser Tyr Ile
1           5           10           15
Glu Pro Asn Leu Leu Tyr Phe Asp Leu Asn Leu Leu Lys Ile Ile Val
                20                25                30
Asn Cys Phe Leu Ala Tyr Val Ala Pro His Val
                35                40

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<210> 4290

<211> 261

<212> PRT

<213> S.epidermidis

<400> 4290

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Arg Val Asn Asp Ser Met Ser Leu Thr Ile Lys Glu Ile Lys Glu Lys
1           5           10           15
Leu Ser Arg Ile Glu Thr Leu Glu Glu Leu His Lys His Glu Ala Asn
                20                25                30
Asn Asp Ser Arg Lys Gly Val Ile Asn Ala Ile Lys Ser Arg Glu Lys
                35                40                45
Asn Ile Leu Lys Gln Gln Ala Leu Glu Glu His Tyr Leu Ser Met Asn
                50                55                60
Gln Tyr Glu Asn Asn Ile Met Ser Ser Asn Arg Asp Ala Leu Ile Cys
65                70                75                80
Gly Ile Asp Glu Val Gly Arg Gly Pro Leu Ala Gly Pro Val Val Ala
                85                90                95
Cys Ala Val Ile Leu Glu Lys Asn His His Tyr Ile Gly Leu Asp Asp
                100                105                110
Ser Lys Lys Val Ser Pro Lys Asn Arg Ala Arg Leu Asn Gln Asn Leu
                115                120                125
Lys Glu Asn Val Tyr Gln Tyr Ala Tyr Gly Ile Ala Ser Ser Val Glu
                130                135                140
Ile Asp Glu Leu Asn Ile Tyr Arg Ala Thr Gln Leu Ala Met Leu Arg
145                150                155                160
Ala Ile Asn Gln Leu Asp Val Thr Pro Thr His Leu Leu Ile Asp Ala
                165                170                175
Met Thr Leu Asp Ile Asp Ile Pro Gln Thr Ser Ile Ile Lys Gly Asp
                180                185                190
Ala Lys Ser Val Ser Ile Ala Ala Ala Ser Ile Met Ala Lys Glu Tyr

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	195					200					205						
Arg	Asp	Gln	Tyr	Met	Arg	Gln	Leu	Ser	Lys	Gln	Phe	Pro	Glu	Tyr	Gly		
	210					215					220						
Phe	Asp	Lys	Asn	Ala	Gly	Tyr	Gly	Thr	Lys	Gln	His	Leu	Lys	Ala	Ile		
225					230					235					240		
Asp	Gln	Val	Gly	Ile	Ile	Asn	Glu	His	Arg	Gln	Ser	Phe	Glu	Pro	Ile		
				245					250					255			
Lys	Ser	Met	Met	Lys													
			260														

<210> 4291

<211> 50

<212> PRT

<213> S.epidermidis

<400> 4291

Leu	Leu	Asp	Asp	Leu	Arg	Leu	Ser	Asn	Lys	Leu	Phe	Val	Thr	Ser	Leu		
1				5					10					15			
Cys	Leu	Lys	Leu	Ser	Asn	Lys	Met	Lys	Leu	Glu	Ala	Ser	Asn	Arg	Ile		
			20					25					30				
Val	Ile	Ile	Ile	Thr	Pro	Thr	Ile	Asp	Met	Arg	Gly	Ile	Asn	Ser	Leu		
		35					40					45					
Ser	Lys																
	50																

<210> 4292

<211> 211

<212> PRT

<213> S.epidermidis

<400> 4292

Phe	Asp	Cys	Glu	Ser	Ala	Cys	Tyr	Arg	Gly	Gly	Asn	Met	Phe	Val	Lys		
1				5					10					15			
Glu	Glu	Lys	Pro	Val	Asn	Lys	Ile	Val	Glu	Ile	Leu	Arg	Lys	Thr	Ser		
			20					25					30				
Ser	His	Leu	Phe	Lys	Phe	His	Gly	Glu	Val	Ala	Met	His	Leu	Phe	Leu		
		35					40					45					
Asn	Asp	Asp	Phe	Ile	Leu	Pro	Ser	Lys	Ile	Asp	Ile	Cys	Val	Glu	Arg		
	50				55					60							
Lys	Lys	Leu	Leu	Glu	Ile	Ile	Arg	Val	Ile	Pro	Glu	Glu	Phe	Thr	Ile		
65				70					75					80			
His	Tyr	Tyr	Asp	Asn	Gln	Leu	Tyr	Glu	Arg	Leu	Arg	Glu	Ser	Leu	Ser		
			85					90						95			
Leu	Ser	Asp	Val	Glu	His	Val	Lys	Val	Phe	Lys	Asn	Asp	Thr	Glu	Val		
		100						105					110				
Met	Thr	Ile	Phe	Val	Tyr	Asp	Val	Val	Asn	Asp	Glu	Trp	Leu	Phe	Arg		
	115						120					125					
Leu	Asp	His	His	Ile	Arg	Leu	Pro	Lys	Asn	Asn	Ile	Tyr	Phe	His	Ser		
	130					135					140						
Leu	Ser	Trp	Asn	Val	Asp	Tyr	Ile	Lys	Pro	Glu	Ile	Val	Leu	Met	Tyr		
145				150					155					160			
Asp	Leu	Met	Ser	Glu	Gln	Lys	Tyr	His	Gln	Phe	Ser	Asn	Tyr	Lys	Ala		
			165						170					175			
Val	Ile	Asp	Ser	Leu	Ser	Tyr	Tyr	Gln	Phe	Tyr	Ile	Leu	Lys	Leu	Val		
		180						185				190					
Val	Gly	Glu	Gln	Arg	Ile	Lys	Lys	Ala	Ile	Val	Asn	Ser	Ser	Thr	Lys		

195
Lys Ile Ser
210

200

205

<210> 4293
<211> 164
<212> PRT
<213> S.epidermidis

<400> 4293
Asn Arg Ser Glu Asn Met Thr Gln Glu Leu Lys Ser Lys Leu Leu Ser
1 5 10 15
Phe Phe Lys Phe Ile Phe Ala Thr Ala Leu Phe Ile Phe Val Ile Phe
20 25 30
Thr Leu Tyr Arg Glu Leu Ser His Ile Asn Phe Lys Glu Thr Phe Ile
35 40 45
Gln Phe Gly Lys Ile Asn Arg Leu Trp Leu Val Leu Leu Phe Ala Gly
50 55 60
Gly Gly Leu Ser Leu Ile Leu Leu Ser Leu Tyr Asp Ile Ile Leu Val
65 70 75 80
Lys Ala Leu Lys Leu Lys Met Pro Leu Ile Arg Val Phe Arg Val Ser
85 90 95
Tyr Ile Ile Asn Ala Leu Asn Ser Ile Ile Gly Phe Gly Gly Phe Ile
100 105 110
Gly Ala Gly Val Arg Ala Phe Val Tyr Lys Asn Tyr Thr Asn Asp Thr
115 120 125
Lys Lys Leu Val Gln Tyr Ile Phe Ile Ile Leu Val Ser Met Leu Thr
130 135 140
Gly Leu Ser Leu Leu Ser Ile Leu Val Val Leu Arg Ile Phe Asn Ala
145 150 155 160
Ser Ser His Asp

<210> 4294
<211> 185
<212> PRT
<213> S.epidermidis

<400> 4294
Lys Met Ser Asp Ile Ile Lys Asp Thr Lys Ser Arg Met Gln Lys Ser
1 5 10 15
Ile Asp Asn Leu Ser Arg Glu Leu Ala Asn Ile Ser Ala Gly Arg Ala
20 25 30
Asn Ser Asn Leu Leu Asn Gly Val Thr Val Asp Tyr Tyr Gly Ala Pro
35 40 45
Thr Pro Val Gln Gln Leu Ala Ser Ile Asn Val Pro Glu Ala Arg Leu
50 55 60
Leu Val Ile Ser Pro Tyr Asp Lys Ser Ser Val Ala Asp Ile Glu Lys
65 70 75 80
Ala Ile Ile Ala Ala Asn Leu Gly Val Asn Pro Thr Ser Asp Gly Glu
85 90 95
Val Ile Arg Ile Ser Val Pro Ala Leu Thr Glu Glu Arg Arg Lys Glu
100 105 110
Leu Val Lys Glu Val Lys Lys Ile Gly Glu Asp Ala Lys Val Ser Ile
115 120 125
Arg Asn Ile Arg Arg Asp Ile Asn Asp Gln Leu Lys Lys Asp Glu Lys

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<210> 4295
<211> 57
<212> PRT
<213> S.epidermidis
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<210> 4296
<211> 804
<212> PRT
<213> S.epidermidis
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<400> 4296															
Gly 1	Gly	Asn	Glu	Leu 5	Ser	Glu	Ile	Ile	Gln 10	Asp	Leu	Ser	Leu	Glu 15	Asp
Val	Ile	Gly	Asp 20	Arg	Phe	Gly	Arg	Tyr 25	Ser	Lys	Tyr	Ile	Ile	Gln 30	Glu
Arg	Ala	Leu 35	Pro	Asp	Val	Arg	Asp 40	Gly	Leu	Lys	Pro	Val	Gln	Arg	Arg
Ile	Leu 50	Phe	Ala	Met	Tyr	Ser 55	Ser	Gly	Asn	Thr	Tyr 60	Asp	Lys	Asn	Phe
Arg 65	Lys	Ser	Ala	Lys	Thr 70	Val	Gly	Asp	Val	Ile 75	Gly	Gln	Tyr	His	Pro
His	Gly	Asp	Ser	Ser 85	Val	Tyr	Asp	Ala	Met 90	Val	Arg	Leu	Ser	Gln 95	Asp
Trp	Lys	Leu	Arg 100	His	Val	Leu	Ile	Glu 105	Met	His	Gly	Asn	Asn	Gly 110	Ser
Ile	Asp	Asn 115	Asp	Pro	Pro	Ala	Ala 120	Met	Arg	Tyr	Thr	Glu 125	Ala	Lys	Leu
Ser	Gln 130	Leu	Ser	Glu	Glu	Leu 135	Leu	Arg	Asp	Ile	Asn 140	Lys	Glu	Thr	Val
Ser 145	Phe	Ile	Pro	Asn	Tyr 150	Asp	Asp	Thr	Thr	Leu	Glu 155	Pro	Met	Val	Leu
Pro	Ala	Arg	Phe	Pro 165	Asn	Leu	Leu	Ile	Asn 170	Gly	Ser	Thr	Gly	Ile 175	Ser
Ser	Gly	Tyr	Ala 180	Thr	Asp	Ile	Pro	Pro 185	His	Asn	Leu	Ala	Glu 190	Val	Ile
Gln	Gly	Thr 195	Leu	Lys	Tyr	Ile	Asp 200	Gln	Pro	Asp	Ile	Thr 205	Ile	Asn	Gln
Leu	Met	Lys	Tyr	Ile	Lys	Gly	Pro	Asp	Phe	Pro	Thr	Gly	Gly	Ile	Ile

210		215		220
Gln Gly Ile Glu Gly Ile	Lys Lys Ala Tyr Glu Thr Gly Lys Gly Lys			
225	230	235	240	
Val Val Val Arg Ser Arg Val Asp Glu Glu Pro Leu Arg Ser Gly Arg				
	245	250	255	
Lys Gln Leu Ile Val Thr Glu Ile Pro Tyr Glu Val Asn Lys Ser Ser				
	260	265	270	
Leu Val Lys Arg Ile Asp Glu Leu Arg Ala Asp Lys Lys Val Asp Gly				
	275	280	285	
Ile Val Glu Val Arg Asp Glu Thr Asp Arg Thr Gly Leu Arg Ile Ala				
	290	295	300	
Ile Glu Leu Lys Lys Asp Ala Asn Ser Glu Ser Ile Lys Asn Tyr Leu				
305	310	315	320	
Tyr Lys Asn Ser Asp Leu Gln Ile Ser Tyr Asn Phe Asn Met Val Ala				
	325	330	335	
Ile Ser Glu Gly Arg Pro Lys Leu Met Gly Leu Arg Glu Ile Ile Glu				
	340	345	350	
Ser Tyr Leu Asn His Gln Ile Glu Val Val Thr Asn Arg Thr Arg Tyr				
	355	360	365	
Asp Leu Glu Gln Ala Glu Lys Arg Met His Ile Val Glu Gly Leu Met				
	370	375	380	
Lys Ala Leu Ser Ile Leu Asp Glu Val Ile Ala Leu Ile Arg Asn Ser				
385	390	395	400	
Lys Asn Lys Lys Asp Ala Lys Asp Asn Leu Val Ala Glu Tyr Asp Phe				
	405	410	415	
Thr Glu Ala Gln Ala Glu Ala Ile Val Met Leu Gln Leu Tyr Arg Leu				
	420	425	430	
Thr Asn Thr Asp Ile Glu Ala Leu Lys Lys Glu His Glu Glu Leu Glu				
	435	440	445	
Ala Leu Ile Lys Glu Leu Arg Asn Ile Leu Asp Asn His Glu Ala Leu				
	450	455	460	
Leu Ala Val Ile Lys Asp Glu Leu Asn Glu Ile Lys Lys Lys Phe Lys				
465	470	475	480	
Val Asp Arg Leu Ser Thr Ile Glu Ala Glu Ile Ser Glu Ile Lys Ile				
	485	490	495	
Asp Lys Glu Val Met Val Pro Ser Glu Glu Val Ile Leu Ser Leu Thr				
	500	505	510	
Gln His Gly Tyr Ile Lys Arg Thr Ser Thr Arg Ser Phe Asn Ala Ser				
	515	520	525	
Gly Val Thr Glu Ile Gly Leu Lys Asp Gly Asp Arg Leu Leu Lys His				
	530	535	540	
Glu Ser Val Asn Thr Gln Asp Thr Val Leu Val Phe Thr Asn Lys Gly				
545	550	555	560	
Arg Tyr Leu Phe Ile Pro Val His Lys Leu Ala Asp Ile Arg Trp Lys				
	565	570	575	
Glu Leu Gly Gln His Ile Ser Gln Ile Val Pro Ile Asp Glu Asp Glu				
	580	585	590	
Glu Val Val Asn Val Tyr Asn Glu Lys Asp Phe Lys Asn Glu Ala Phe				
	595	600	605	
Tyr Ile Met Ala Thr Lys Asn Gly Met Ile Lys Lys Ser Ser Ala Ser				
	610	615	620	
Gln Phe Lys Thr Thr Arg Phe Asn Lys Pro Leu Ile Asn Met Lys Val				
625	630	635	640	
Lys Asp Lys Asp Glu Leu Ile Asn Val Val Arg Leu Glu Ser Asp Gln				
	645	650	655	
Leu Ile Thr Val Leu Thr His Lys Gly Met Ser Leu Thr Tyr Ser Thr				

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<210> 4297
<211> 111
<212> PRT
<213> S.epidermidis
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<210> 4298
<211> 675
<212> PRT
<213> S.epidermidis
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<400> 4298
Leu Lys Ile Asp Ile Asn Cys Arg Arg Glu Asp Thr Thr Met Phe Asn
1          5          10          15
Glu Lys Asp Gln Leu Ala Ile Asp Thr Ile Arg Ala Leu Ser Ile Asp
          20          25          30
Ala Ile Glu Lys Ala Asn Ser Gly His Pro Gly Leu Pro Met Gly Ala
          35          40          45
Ala Pro Met Ala Tyr Thr Leu Trp Thr Arg His Leu Asn Phe Asn Pro
          50          55          60
Gln Ser Lys Asp Phe Phe Asn Arg Asp Arg Phe Ile Leu Ser Ala Gly

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65					70					75					80
His	Gly	Ser	Ala	Leu	Leu	Tyr	Ser	Leu	Leu	His	Val	Ser	Gly	Ser	Leu
				85					90					95	
Glu	Leu	Glu	Glu	Leu	Lys	Gln	Phe	Thr	Gln	Trp	Gly	Ser	Lys	Thr	Pro
			100					105					110		
Gly	His	Pro	Glu	Tyr	Ile	His	Thr	Asp	Gly	Val	Gln	Val	Thr	Thr	Gly
		115					120					125			
Pro	Leu	Gly	Gln	Gly	Phe	Ala	Met	Ser	Val	Arg	Met	Ala	Leu	Ala	Glu
		130				135					140				
Ser	His	Leu	Ala	Gly	Lys	Phe	Asn	Lys	Asp	Gln	Phe	Asp	Ile	Val	Asn
145					150					155					160
His	Tyr	Thr	Tyr	Val	Leu	Ala	Ser	Asp	Gly	Asp	Leu	Met	Glu	Gly	Ile
				165					170					175	
Ser	His	Glu	Ala	Ala	Ser	Phe	Ala	Gly	His	Asn	Gln	Leu	Asp	Lys	Leu
			180					185					190		
Ile	Val	Leu	Tyr	Asp	Ser	Asn	Asp	Ile	Ser	Leu	Asp	Gly	Asp	Leu	Tyr
		195					200					205			
Lys	Ser	Phe	Ser	Glu	Asp	Thr	Lys	Gln	Arg	Phe	Glu	Ala	Tyr	Gly	Trp
		210				215					220				
Asn	Tyr	Ile	Leu	Val	Glu	Asn	Gly	Asn	Asp	Leu	Asp	Glu	Ile	Asp	Asn
225					230					235					240
Ala	Ile	Thr	Gln	Ala	Lys	Ser	Gln	Gln	Gly	Pro	Thr	Ile	Ile	Glu	Val
				245					250					255	
Lys	Thr	Ile	Ile	Gly	Phe	Gly	Ser	Pro	Asn	Lys	Ala	Gly	Ser	Asn	Gly
			260					265					270		
Val	His	Gly	Ala	Pro	Leu	Gly	Glu	Glu	Glu	Arg	Ala	Leu	Thr	Phe	Lys
		275					280					285			
Glu	Tyr	Gly	Leu	Asp	Pro	Glu	Lys	Arg	Phe	Asn	Val	Pro	Glu	Asp	Val
		290				295					300				
Tyr	Glu	Ile	Phe	Lys	Ser	Thr	Met	Leu	Lys	Arg	Ala	Asn	Glu	Asn	Glu
305					310					315					320
Glu	Ala	Trp	Asn	Asn	Met	Leu	Lys	Asn	Tyr	Ser	Glu	Ala	Tyr	Pro	Glu
				325					330					335	
Leu	Ala	Glu	Glu	Phe	Lys	Leu	Ala	Met	Ser	Gly	Lys	Leu	Pro	Asn	Asn
			340					345					350		
Tyr	Ala	Asp	Ala	Leu	Pro	Glu	Tyr	Asp	Leu	Asn	His	Ser	Gly	Ala	Ser
		355					360					365			
Arg	Ala	Asp	Ser	Gly	Glu	Ile	Ile	Gln	Lys	Leu	Ser	Glu	Phe	Val	Pro
		370				375					380				
Ser	Phe	Phe	Gly	Gly	Ser	Ala	Asp	Leu	Ala	Gly	Ser	Asn	Lys	Ser	Asn
385					390					395					400
Val	Lys	Glu	Ala	Lys	Asp	Tyr	Asn	Lys	Asp	Thr	Pro	Glu	Gly	Lys	Asn
				405					410					415	
Val	Trp	Phe	Gly	Val	Arg	Glu	Phe	Ala	Met	Gly	Ala	Ala	Ile	Asn	Gly
			420					425					430		
Met	Ala	Ala	His	Gly	Gly	Leu	His	Pro	Tyr	Ala	Ala	Thr	Phe	Phe	Val
		435					440					445			
Phe	Ser	Asp	Tyr	Leu	Lys	Pro	Ala	Leu	Arg	Leu	Ser	Ser	Ile	Met	Gly
		450				455					460				
Leu	Asn	Ser	Thr	Phe	Ile	Phe	Thr	His	Asp	Ser	Ile	Ala	Val	Gly	Glu
465					470				475						480
Asp	Gly	Pro	Thr	His	Glu	Pro	Ile	Glu	Gln	Leu	Ala	Gly	Leu	Arg	Ala
				485				490						495	
Ile	Pro	Asn	Met	Asn	Val	Ile	Arg	Pro	Ala	Asp	Gly	Asn	Glu	Thr	Arg
			500					505					510		
Val	Ala	Trp	Glu	Val	Ala	Leu	Glu	Ser	Glu	His	Thr	Pro	Thr	Ser	Leu

Val	Leu	Thr	Arg	Gln	Asn	Leu	Pro	Thr	Leu	Asp	Val	Asp	Lys	Gln	Thr
530						535					540				
Val	Glu	Asn	Gly	Val	Arg	Lys	Gly	Ala	Tyr	Ile	Val	Phe	Glu	Thr	Glu
545					550					555					560
Gln	Gln	Leu	Glu	Tyr	Leu	Leu	Leu	Ala	Ser	Gly	Ser	Glu	Val	Asn	Leu
				565					570					575	
Ala	Val	Glu	Ala	Ala	Lys	Glu	Leu	Glu	Gln	Gln	Gly	Lys	Gly	Val	Arg
			580					585				590			
Val	Ile	Ser	Met	Pro	Asn	Trp	Tyr	Ala	Phe	Glu	Gln	Gln	Ser	Ser	Glu
		595					600					605			
Tyr	Lys	Glu	Ser	Ile	Leu	Pro	Ser	Asp	Val	Thr	Lys	Arg	Ile	Ala	Ile
	610					615					620				
Glu	Met	Ala	Ser	Pro	Leu	Gly	Trp	His	Lys	Tyr	Val	Gly	Ile	Glu	Gly
625					630					635					640
Lys	Val	Ile	Gly	Ile	Asn	Ser	Phe	Gly	Ala	Ser	Ala	Pro	Gly	Asp	Leu
				645					650					655	
Val	Val	Glu	Lys	Tyr	Gly	Phe	Thr	Lys	Glu	Asn	Ile	Leu	Lys	Gln	Val
			660					665					670		
Arg	Ser	Leu													
		675													

<210> 4299

<211> 232

<212> PRT

<213> S.epidermidis

<400> 4299

Cys	Gln	Ile	Glu	Val	Cys	Pro	Lys	Gly	Phe	Arg	Asn	Met	His	Gly	Phe
1				5					10					15	
Gly	Ser	His	Lys	Tyr	Ser	Met	Tyr	Asn	Asp	Lys	Gly	Glu	Arg	Val	Trp
			20					25					30		
Val	Lys	Tyr	His	Phe	Arg	Thr	Gln	Gly	Ile	Glu	Asn	Tyr	Thr	Asp	
		35					40				45				
Glu	Glu	Ala	Ala	Lys	Ile	Val	Gly	Met	Asp	Arg	Asp	Ser	Ser	Gln	Arg
	50					55				60					
Asp	Leu	Tyr	Asn	Ala	Ile	Glu	Asn	Gly	Asp	Tyr	Pro	Lys	Trp	Lys	Met
65				70					75					80	
Tyr	Ile	Gln	Val	Met	Thr	Glu	Glu	Gln	Ala	Lys	Asn	His	Pro	Asp	Asn
			85						90					95	
Pro	Phe	Asp	Leu	Thr	Lys	Val	Trp	Tyr	Lys	Lys	Asp	Tyr	Pro	Leu	Ile
		100						105					110		
Glu	Val	Gly	Glu	Phe	Glu	Leu	Asn	Arg	Asn	Pro	Glu	Asn	Tyr	Phe	Leu
	115						120				125				
Asp	Val	Glu	Gln	Ala	Ala	Phe	Thr	Pro	Thr	Asn	Ile	Val	Pro	Gly	Leu
	130					135					140				
Asp	Tyr	Ser	Pro	Asp	Lys	Met	Leu	Gln	Gly	Arg	Leu	Phe	Ser	Tyr	Gly
145					150					155					160
Asp	Ala	Gln	Arg	Tyr	Arg	Leu	Gly	Val	Asn	His	Trp	Gln	Ile	Pro	Val
			165						170					175	
Asn	Gln	Pro	Lys	Gly	Val	Gly	Val	Glu	Asn	Leu	Cys	Pro	Phe	Ser	Arg
		180						185					190		
Asp	Gly	Gln	Met	Arg	Phe	Leu	Asp	Asn	Asn	Gln	Gly	Gly	Gly	Pro	His
	195						200				205				
Tyr	Tyr	Pro	Asn	Asn	Gln	Gly	Ile	Tyr	Glu	Ser	Gln	Pro	Glu	His	Lys
	210					215					220				

Lys Pro Thr Ile Pro Asp Arg Trp
225 230

<210> 4300

<211> 327

<212> PRT

<213> S.epidermidis

<400> 4300

Pro Lys Ser Glu Arg Ala Phe Lys Asp Lys Ile Leu Ile Pro Gln Asn
1 5 10 15
Asp Leu Asn His Ala Pro Lys Lys Asn Lys Val Leu Asp Thr Phe Glu
20 25 30
Gln Gln Lys Ile Asn Phe Val Lys Gln Gln Ser Gln Ile Gly Glu Thr
35 40 45
Ser Ala Pro Tyr Val His Asp His Lys Asp Lys Asn His Asp Val Glu
50 55 60
Ser His Lys Asn Asn Leu Asp Ser Thr Ser Ser Thr Asn Asn Glu Ser
65 70 75 80
Thr Glu Val Ser Asn Glu Leu His Asn Tyr Ile Asp Asp Ser Tyr Leu
85 90 95
Gln Ser Gln Lys Glu Val Phe Phe Asp Met Glu Gln Asn Thr Ser Asn
100 105 110
Glu Tyr Glu Ile Ser Asn Gln Gln Ser Asn Asp Ile Lys Gly Thr Val
115 120 125
Ser Gln Thr Pro His Arg Arg Val Pro Tyr Met Glu Ile Val Gly Gln
130 135 140
Val His Gly Thr Tyr Ile Ile Ala Gln Asn Glu Asn Gly Met Phe Met
145 150 155 160
Ile Asp Gln His Ala Ala Gln Glu Arg Ile Lys Tyr Glu Tyr Phe Arg
165 170 175
Glu Lys Ile Gly Glu Val Thr Asn Glu Val Gln Asn Leu Leu Ile Pro
180 185 190
Leu Thr Phe His Phe Ser Lys Asp Glu Gln Met Ile Ile Asp Gln Tyr
195 200 205
Lys Asp Glu Leu Asp Lys Val Gly Val His Leu Glu His Phe Gly Gly
210 215 220
His Asp Tyr Ile Val Asn Ser Tyr Pro Val Trp Phe Pro Lys Glu Glu
225 230 235 240
Ala Glu Glu Ile Ile Lys Asp Met Ile Glu Leu Val Leu Lys His Lys
245 250 255
Ser Val Asp Val Lys Lys Ile Arg Glu Asp Ala Ala Ile Met Met Ser
260 265 270
Cys Lys Lys Ser Ile Lys Ala Asn His Tyr Leu Lys Asn Asn Glu Met
275 280 285
Ala Asp Leu Ile Asp Gln Leu Arg Glu Ala Glu Asp Pro Phe Thr Cys
290 295 300
Pro His Gly Arg Pro Ile Ile Ile Asn Phe Ser Asn Tyr Glu Leu Glu
305 310 315 320
Lys Leu Phe Lys Arg Val Met
325

<210> 4301

<211> 690

<212> PRT

<213> S.epidermidis

<400> 4301

Thr	Leu	Ala	Asp	Asn	Leu	Val	Ile	Val	Glu	Ser	Pro	Ala	Lys	Ala	Lys
1				5					10					15	
Thr	Ile	Glu	Lys	Tyr	Leu	Gly	Lys	Arg	Tyr	Lys	Val	Ile	Ala	Ser	Met
			20					25					30		
Gly	His	Val	Arg	Asp	Leu	Pro	Arg	Ser	Gln	Met	Gly	Val	Asp	Thr	Glu
		35					40					45			
Asp	Asn	Tyr	Glu	Pro	Lys	Tyr	Ile	Thr	Ile	Arg	Gly	Lys	Gly	Pro	Val
	50					55					60				
Val	Lys	Asp	Leu	Lys	Lys	His	Ala	Lys	Lys	Ala	Lys	Lys	Ile	Phe	Leu
65					70					75					80
Ala	Ser	Asp	Pro	Asp	Arg	Glu	Gly	Glu	Ala	Ile	Ala	Trp	His	Leu	Ser
				85					90					95	
Lys	Ile	Leu	Glu	Leu	Glu	Asp	Ser	Lys	Glu	Asn	Arg	Val	Val	Phe	Asn
			100					105					110		
Glu	Ile	Thr	Lys	Asp	Ala	Val	Lys	Asp	Ser	Phe	Lys	His	Pro	Arg	Gly
		115					120					125			
Ile	Glu	Met	Asp	Leu	Val	Asp	Ala	Gln	Gln	Ala	Arg	Arg	Ile	Leu	Asp
	130					135					140				
Arg	Leu	Val	Gly	Tyr	Asn	Ile	Ser	Pro	Val	Leu	Trp	Lys	Lys	Val	Lys
145					150					155					160
Lys	Gly	Leu	Ser	Ala	Gly	Arg	Val	Gln	Ser	Val	Ala	Leu	Arg	Leu	Val
				165				170						175	
Ile	Asp	Arg	Glu	Asn	Glu	Ile	Arg	Asn	Phe	Lys	Pro	Glu	Glu	Tyr	Trp
			180					185					190		
Ser	Ile	Glu	Gly	Glu	Phe	Arg	Tyr	Lys	Lys	Ser	Lys	Phe	Thr	Ala	Lys
		195					200					205			
Phe	Leu	His	Tyr	Lys	Asn	Lys	Pro	Tyr	Lys	Leu	Asn	Asn	Lys	Asp	Asp
	210				215						220				
Val	Gln	Arg	Ile	Thr	Glu	Ala	Leu	Asn	Gly	Asp	Gln	Phe	Glu	Ile	Thr
225					230					235					240
Asn	Val	Asn	Arg	Lys	Glu	Lys	Thr	Arg	Tyr	Pro	Ala	His	Pro	Phe	Thr
				245				250						255	
Thr	Ser	Thr	Leu	Gln	Gln	Glu	Ala	Ala	Arg	Lys	Leu	Asn	Phe	Lys	Ala
			260					265					270		
Arg	Lys	Thr	Met	Met	Leu	Ala	Gln	Gln	Leu	Tyr	Glu	Gly	Ile	Asp	Leu
		275					280					285			
Lys	Arg	Gln	Gly	Thr	Val	Gly	Leu	Ile	Thr	Tyr	Met	Arg	Thr	Asp	Ser
	290					295					300				
Thr	Arg	Ile	Ser	Thr	Ser	Ala	Lys	Ser	Glu	Ala	Gln	Gln	Tyr	Ile	Asn
305					310					315					320
Asp	Lys	Tyr	Gly	Glu	Gln	Tyr	Val	Ser	Gln	Arg	Lys	Ser	Ser	Gly	Lys
				325					330					335	
Gln	Gly	Asp	Gln	Asp	Ala	His	Glu	Ala	Ile	Arg	Pro	Thr	Ser	Thr	Met
			340					345					350		
Arg	Thr	Pro	Asp	Asp	Met	Lys	Ala	Phe	Leu	Thr	Arg	Asp	Gln	His	Arg
		355					360					365			
Leu	Tyr	Lys	Leu	Ile	Trp	Glu	Arg	Phe	Val	Ala	Ser	Gln	Met	Ala	Pro
	370					375					380				
Ala	Ile	Leu	Asp	Thr	Val	Ala	Leu	Asp	Val	Thr	Gln	Asn	Asp	Ile	Lys
385					390					395					400
Phe	Arg	Ala	Asn	Gly	Gln	Thr	Ile	Lys	Phe	Lys	Gly	Phe	Met	Thr	Leu
				405					410					415	
Tyr	Val	Glu	Ala	Lys	Asp	Asp	Lys	Glu	Asn	Asp	Lys	Glu	Asn	Lys	Leu
			420					425						430	

Pro Gln Leu Asp Lys Gly Asp Lys Val Thr Ala Thr Lys Ile Glu Pro
 435 440 445
 Ala Gln His Phe Thr Gln Pro Pro Pro Arg Tyr Thr Glu Ala Arg Leu
 450 455 460
 Val Lys Thr Leu Glu Glu Leu Lys Ile Gly Arg Pro Ser Thr Tyr Ala
 465 470 475 480
 Pro Thr Ile Asp Thr Ile Gln Lys Arg Asn Tyr Val Lys Leu Glu Ser
 485 490 495
 Lys Arg Phe Ile Pro Thr Glu Leu Gly Glu Ile Val Tyr Glu Gln Val
 500 505 510
 Lys Glu Tyr Phe Pro Glu Ile Ile Asp Val Glu Phe Thr Val Asn Met
 515 520 525
 Glu Thr Leu Leu Asp Lys Ile Ala Glu Gly Asp Met Asn Trp Arg Lys
 530 535 540
 Val Ile Gly Asp Phe Tyr Asn Ser Phe Lys Gln Asp Val Glu Arg Ala
 545 550 555 560
 Glu Ser Glu Met Glu Lys Ile Glu Ile Lys Asp Glu Pro Ala Gly Glu
 565 570 575
 Asp Cys Glu Val Cys Gly Ser Pro Met Val Ile Lys Met Gly Arg Tyr
 580 585 590
 Gly Lys Phe Met Ala Cys Ser Asn Phe Pro Asp Cys Arg Asn Thr Lys
 595 600 605
 Ala Ile Val Lys Thr Ile Gly Val Thr Cys Pro Lys Cys Asn Glu Gly
 610 615 620
 Asp Val Val Glu Arg Lys Ser Lys Lys Asn Arg Ile Phe Tyr Gly Cys
 625 630 635 640
 Ser Arg Tyr Pro Glu Cys Asp Phe Ile Ser Trp Asp Lys Pro Val Gly
 645 650 655
 Arg Asp Cys Pro Lys Cys His His Tyr Leu Val Asn Lys Lys Lys Gly
 660 665 670
 Lys Ser Ser Gln Val Val Cys Ser Asn Cys Asp Tyr Glu Glu Glu Val
 675 680 685
 Gln Lys
 690

<210> 4302

<211> 97

<212> PRT

<213> S.epidermidis

<400> 4302

Ser Met Gln Asp Thr Leu Met Ser Ile Gln Ile Ile Pro Lys Thr Pro
 1 5 10 15
 Asn Asn Asn Asp Val Ile Pro Tyr Val Asp Glu Ala Ile Lys Ile Ile
 20 25 30
 Asp Asp Ser Gly Leu His Phe Arg Val Gly Pro Leu Glu Thr Thr Val
 35 40 45
 Gln Gly Glu Met Ser Glu Cys Leu Ile Leu Ile Gln Lys Leu Asn Asp
 50 55 60
 Arg Met Val Glu Leu Glu Cys Pro Ser Ile Ile Ser Gln Val Lys Phe
 65 70 75 80
 Tyr His Val Pro Glu Gly Ile Glu Ile Glu Thr Leu Thr Gly Lys Tyr
 85 90 95
 Asp

<210> 4303
 <211> 299
 <212> PRT
 <213> S.epidermidis

<400> 4303

Lys Glu Gln Asp Asn Met Thr His Met Phe Glu Gly Val Gly Val Ala
 1 5 10 15
 Leu Ala Thr Pro Phe Thr Asn Asn Glu Val Asp Phe Asn Ala Leu Glu
 20 25 30
 Arg His Val Gln Phe Leu Leu Asn Asn Asn Ile Gln Ala Ile Ile Val
 35 40 45
 Asn Gly Thr Thr Ala Glu Ser Pro Thr Leu Ser Asp Glu Glu Lys Glu
 50 55 60
 Lys Val Leu Ala Thr Val Val Lys Leu Val Asn His Ser Val Pro Val
 65 70 75 80
 Ile Ala Gly Thr Gly Thr Asn Asn Thr Tyr Lys Ser Ile Gln Ala Ser
 85 90 95
 Ile Arg Ala Lys Glu Ile Gly Ala Asp Ala Val Met Leu Ile Thr Pro
 100 105 110
 Tyr Tyr Asn Lys Thr Asn Gln Arg Gly Leu Ile Gln His Phe Glu Thr
 115 120 125
 Ile Ala Asn Glu Val Lys Leu Pro Val Ile Leu Tyr Asn Val Pro Ser
 130 135 140
 Arg Thr Asn Met Thr Ile Glu Pro Glu Thr Val Gly Ile Leu Ser His
 145 150 155 160
 Asn Pro Tyr Ile Val Ala Leu Lys Asp Ala Thr Asn Asp Phe Asp Tyr
 165 170 175
 Phe Asp Gln Val Lys Gln Arg Ile Asn Thr Asn Glu Phe Ala Leu Tyr
 180 185 190
 Ser Gly Asn Asp Asp Asn Val Val Lys Phe Tyr Gln Arg Gly Gly Asn
 195 200 205
 Gly Val Ile Ser Val Ile Ala Asn Val Ile Pro Gln Glu Phe Gln Tyr
 210 215 220
 Leu Tyr Asp Gln Arg Gln Asn Glu Thr Asp Ile Thr Asn Tyr Phe Lys
 225 230 235 240
 Pro Ile Glu Lys Leu Leu Glu Ala Leu Ser Leu Asp Val Asn Pro Ile
 245 250 255
 Pro Ile Lys Val Leu Thr Ala Tyr Leu Gly Tyr Gly His Tyr Glu Val
 260 265 270
 Arg Leu Pro Leu Val Pro Leu Glu Glu Ala Gln Cys Lys Gln Val Glu
 275 280 285
 Arg Ala Phe Glu Gln Phe Lys Ala Gly Glu Gln
 290 295

<210> 4304
 <211> 128
 <212> PRT
 <213> S.epidermidis

<400> 4304

Arg Met Lys Asp Ala Ile Gln Glu Ala Glu Lys Leu Ala Lys Met Asn
 1 5 10 15
 Lys Asp Gln Lys Asn Gln Tyr Glu Leu Glu Lys Leu Leu Lys Glu Asn
 20 25 30
 Glu Glu Leu Lys Ala Glu Lys Ala Leu Ser Gln Met Lys Asn Glu Thr


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<210> 4305
<211> 263
<212> PRT
<213> S.epidermidis
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<210> 4306
<211> 55
<212> PRT
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<213> S.epidermidis

<400> 4306

Thr	Ser	Leu	Asp	Met	Leu	Gln	Leu	Leu	Ile	Lys	Ser	Leu	Asn	Lys	Phe
1				5					10					15	
Val	Ser	Tyr	Tyr	Thr	Thr	Asp	Cys	Thr	Tyr	Phe	His	Glu	Lys	Gln	Ile
			20					25					30		
Val	Asn	Asn	Thr	Ile	Lys	Lys	Ser	Arg	Leu	Asp	Leu	Lys	Leu	Cys	Phe
		35					40					45			
Ile	Ile	Phe	Pro	Ala	Leu	Tyr									
	50					55									

<210> 4307

<211> 51

<212> PRT

<213> S.epidermidis

<400> 4307

Asn	Arg	Leu	Glu	Ser	Lys	Thr	Pro	Ile	Ile	Leu	Pro	Gly	Lys	Ala	Asn
1				5					10					15	
Ala	Leu	Pro	Val	Pro	Asn	Glu	Ile	Arg	Ser	Thr	Glu	Glu	Ile	Lys	Ala
			20					25					30		
Cys	Ala	Lys	Pro	Tyr	His	Gly	Pro	Thr	Asn	Thr	Ala	His	Asn	Thr	Phe
		35					40					45			
Thr	Lys	Cys													
	50														

<210> 4308

<211> 41

<212> PRT

<213> S.epidermidis

<400> 4308

Val	Val	Leu	Leu	His	Leu	Leu	Tyr	Leu	Thr	Phe	Gly	Ser	Phe	Asn	Thr
1				5					10					15	
Ile	Tyr	Ile	Ser	Asn	Leu	Asn	Lys	Tyr	Thr	Ile	Val	Val	Val	Lys	Thr
			20					25					30		
Lys	Ile	Leu	Ser	Cys	Lys	Thr	Phe	Ile							
		35					40								

<210> 4309

<211> 573

<212> PRT

<213> S.epidermidis

<400> 4309

Ile	Val	Ser	Leu	Tyr	Met	Asp	Gly	Ser	Leu	Phe	Ile	Gly	Gly	Asn	Ile
1				5					10					15	
Leu	Ser	Leu	Ile	Lys	Lys	Lys	Asn	Lys	Asp	Ile	Arg	Ile	Ile	Pro	Leu
			20					25					30		
Gly	Gly	Val	Gly	Glu	Ile	Ala	Lys	Asn	Met	Tyr	Ile	Val	Glu	Val	Asp
		35					40					45			
Asp	Glu	Met	Phe	Met	Leu	Asp	Ala	Gly	Leu	Met	Phe	Pro	Glu	Asp	Glu
	50					55					60				
Met	Leu	Gly	Val	Asp	Ile	Val	Ile	Pro	Asp	Ile	Gln	Tyr	Val	Ile	Glu
65					70					75					80

Asn	Lys	Glu	Arg	Leu	Lys	Gly	Ile	Phe	Leu	Thr	His	Gly	His	Glu	His
				85					90					95	
Ala	Ile	Gly	Ala	Val	Ser	Tyr	Val	Leu	Glu	Gln	Ile	Asp	Ala	Pro	Val
			100					105					110		
Tyr	Gly	Ser	Lys	Leu	Thr	Ile	Ala	Leu	Val	Lys	Glu	Ala	Met	Lys	Ala
			115				120					125			
Arg	Asn	Ile	Lys	Lys	Lys	Val	Arg	Tyr	Tyr	Thr	Val	Asn	His	Asp	Ser
	130					135					140				
Ile	Met	Arg	Phe	Lys	Asn	Val	Asn	Val	Ser	Phe	Phe	Asn	Thr	Thr	His
145	-			150						155					160
Ser	Ile	Pro	Asp	Ser	Leu	Gly	Val	Cys	Ile	His	Thr	Ser	Tyr	Gly	Ser
				165				170						175	
Ile	Val	Tyr	Thr	Gly	Glu	Phe	Lys	Phe	Asp	Gln	Ser	Leu	His	Gly	His
			180					185					190		
Tyr	Ala	Pro	Asp	Leu	Lys	Arg	Met	Ala	Glu	Ile	Gly	Asp	Glu	Gly	Val
			195				200					205			
Phe	Ala	Leu	Ile	Ser	Asp	Ser	Thr	Glu	Ala	Glu	Lys	Pro	Gly	Tyr	Asn
	210					215					220				
Thr	Pro	Glu	Asn	Ile	Ile	Glu	His	His	Met	Tyr	Asp	Ala	Phe	Ala	Lys
225				230						235					240
Val	Lys	Gly	Arg	Leu	Ile	Val	Ser	Cys	Tyr	Ala	Ser	Asn	Phe	Val	Arg
				245				250						255	
Ile	Gln	Gln	Val	Leu	Asn	Ile	Ala	Ser	Gln	Leu	Asn	Arg	Lys	Val	Ser
			260					265					270		
Phe	Leu	Gly	Arg	Ser	Leu	Glu	Ser	Ser	Phe	Asn	Ile	Ala	Arg	Lys	Met
		275					280					285			
Gly	Tyr	Phe	Asp	Ile	Pro	Lys	Asp	Leu	Leu	Ile	Pro	Ile	Asn	Glu	Val
	290					295					300				
Glu	Asn	Tyr	Pro	Lys	Asn	Glu	Val	Ile	Ile	Ile	Ala	Thr	Gly	Met	Gln
305				310						315					320
Gly	Glu	Pro	Val	Glu	Ala	Leu	Ser	Gln	Met	Ala	Arg	Lys	Lys	His	Lys
				325				330						335	
Ile	Met	Asn	Ile	Glu	Glu	Gly	Asp	Ser	Ile	Phe	Leu	Ala	Ile	Thr	Ala
			340				345						350		
Ser	Ala	Asn	Met	Glu	Val	Ile	Ile	Ala	Asp	Thr	Leu	Asn	Glu	Leu	Val
		355					360						365		
Arg	Ala	Gly	Ala	His	Ile	Ile	Pro	Asn	Asn	Lys	Lys	Ile	His	Ala	Ser
	370					375				380					
Ser	His	Gly	Cys	Met	Glu	Glu	Leu	Lys	Met	Met	Leu	Asn	Ile	Met	Lys
385				390						395					400
Pro	Glu	Tyr	Phe	Val	Pro	Val	Gln	Gly	Glu	Phe	Lys	Met	Gln	Ile	Ala
			405					410						415	
His	Ala	Lys	Leu	Ala	Ala	Glu	Thr	Gly	Val	Ala	Pro	Glu	Lys	Ile	Phe
			420					425					430		
Leu	Val	Glu	Lys	Gly											

1548

Ile Val Glu Glu Gly Leu Gln Glu Lys Arg Ile Glu Trp Ser Glu Ile
530 535 540
Lys Gln Asn Met Arg Asp Gln Ile Ser Lys Leu Leu Phe Glu Ser Thr
545 550 555 560
Lys Arg Arg Pro Met Ile Ile Pro Val Ile Ser Glu Ile
565 570

<210> 4310
<211> 259
<212> PRT
<213> S.epidermidis

<400> 4310
Lys Leu Lys Leu Leu Thr Ile Lys Asn Leu Asn Ile Asn Asp Lys Glu
1 5 10 15
Gly Gln Ala Ile Ile Lys Asn Val Asp Leu Asn Ile Tyr Asn Gln Ser
20 25 30
Leu Asn Val Ile Ile Gly Glu Ser Gly Ala Gly Lys Ser Leu Thr Val
35 40 45
Lys Ala Ile Leu Asn His Leu Pro Thr Gln Leu His Met Ser Phe Asp
50 55 60
Glu Phe Lys Met Gln Gly Gln Asn Thr Ser Gly Ile Lys Gln Leu Leu
65 70 75 80
Gly Lys His Ile Gly Tyr Ile Ser Gln Asn Tyr Ala Gln Ser Phe Asn
85 90 95
Glu Tyr Thr Arg Leu Asp Lys Gln Leu Ile Ala Ile Tyr Arg Tyr His
100 105 110
Phe Asn Val Ser Lys Asp Asn Ala Leu Lys Lys Ile Lys Lys Ala Leu
115 120 125
Thr Trp Val Asn Leu Asn Asp Glu Ser Ile Ile Asn Lys Tyr Ser Phe
130 135 140
Gln Leu Ser Gly Gly Gln Leu Glu Arg Val Asn Ile Ala Ser Val Leu
145 150 155 160
Met Leu Asp Pro Glu Leu Ile Ile Ala Asp Glu Pro Val Ala Ser Leu
165 170 175
Asp Val Val Asn Gly His Gln Ile Met Gln Leu Leu Gln His Ile Val
180 185 190
Lys Asp His His Asn Thr Val Leu Leu Ile Thr His Asn Met Asn His
195 200 205
Val Leu Lys Tyr Ala Asp Tyr Phe Asn Val Met Arg Asn Gly Met Met
210 215 220
Ile Glu Ser Gly Glu Ile Asp Lys Leu Phe Asn His His His Leu His
225 230 235 240
Arg Tyr Thr Glu Gln Leu Leu Asn Tyr Arg Ser Lys Leu Gln Lys Glu
245 250 255
Asp Asn Ile

<210> 4311
<211> 284
<212> PRT
<213> S.epidermidis

<400> 4311
Gly Ser Pro Cys Phe Leu Gly Gly Met Tyr Met Asn Ala Tyr Leu Ala
1 5 10 15

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Glu Phe Leu Gly Thr Ala Ile Leu Ile Leu Phe Gly Gly Gly Val Cys
 20 25 30
 Ala Asn Val Asn Leu Lys Arg Ser Ala Gly Asn Gly Ala Asp Trp Ile
 35 40 45
 Val Ile Ala Phe Gly Trp Gly Leu Ala Val Thr Met Gly Val Tyr Ala
 50 55 60
 Val Gly Thr Phe Ser Gly Ala His Leu Asn Pro Ala Val Thr Val Ala
 65 70 75 80
 Leu Ala Met Asp Gly Gly Phe Ser Trp Ala Gln Val Pro Gly Tyr Ile
 85 90 95
 Val Cys Gln Met Leu Gly Gly Ile Val Gly Gly Val Phe Val Trp Leu
 100 105 110
 Met Tyr Leu Pro His Trp Lys Val Thr Glu Asp Pro Ala Val Lys Leu
 115 120 125
 Gly Val Phe Ser Thr Ala Pro Ala Ile Lys Asn Tyr Phe Ala Asn Phe
 130 135 140
 Leu Ser Glu Ile Ile Gly Thr Met Ala Leu Thr Leu Gly Ile Leu Phe
 145 150 155 160
 Ile Gly Val Asn Lys Ile Ala Asp Gly Leu Asn Pro Ile Ile Val Gly
 165 170 175
 Ser Leu Ile Ile Ala Ile Gly Leu Ser Leu Gly Gly Thr Thr Gly Tyr
 180 185 190
 Ala Ile Asn Pro Ala Arg Asp Leu Ala Pro Arg Ile Ala His Ala Ile
 195 200 205
 Leu Pro Ile His Gly Lys Gly Lys Ser Asn Trp Ser Tyr Ala Ile Val
 210 215 220
 Pro Val Leu Gly Pro Met Ala Gly Gly Met Leu Gly Ala Ile Val Tyr
 225 230 235 240
 Glu Val Phe Tyr Lys Gln Thr Phe Asn Phe Ser Cys Phe Ile Gly Leu
 245 250 255
 Ile Val Leu Ile Phe Thr Leu Ile Leu Gly Val Ile Leu Asn Lys Ile
 260 265 270
 Ser Gln Asn Lys Asn Asn Asp Ile Glu Ser Ile Tyr
 275 280

<210> 4312

<211> 44

<212> PRT

<213> S.epidermidis

<400> 4312

His Glu Asn Cys Lys Lys Tyr Ile Tyr His Tyr Arg Leu Phe Thr Leu
 1 5 10 15
 Gly Gly Cys Phe Asn Glu Lys Val Ala Ile Ser Arg Tyr Tyr Cys Ile
 20 25 30
 Arg Ser Phe Gly Phe Thr Trp Arg Leu Trp Arg Lys
 35 40

<210> 4313

<211> 370

<212> PRT

<213> S.epidermidis

<400> 4313

Glu Arg Arg Cys Thr Leu Met Glu Ser Arg Ser Trp Gly Val Arg Ile
 1 5 10 15

Gly Glu Leu Ser Thr Leu Ile Tyr Leu Ile Phe Pro Ile Leu Ala Ile
 20 25 30
 Phe Val Asp Lys Arg Gly Asn Phe Leu Thr Tyr Leu Ile Val Cys Thr
 35 40 45
 Ile Phe Ile Ile Ser Tyr Val Thr Met Ile Ile Phe Tyr Lys Tyr Leu
 50 55 60
 Ser Asp Ser Ile Leu Tyr Ser Leu Leu Val Ile His Tyr Leu Gly Ile
 65 70 75 80
 Phe Tyr Phe Val Tyr Ser Val Asn Pro Met Asn Ser Leu Phe Phe Phe
 85 90 95
 Tyr Ser Ala Phe Ala Leu Pro Phe Ile Phe Asn Val Arg Val Val Ser
 100 105 110
 Lys Glu Phe Ile Thr Phe Leu Ile Ala Met Ile Ser Cys Leu Ile Leu
 115 120 125
 Thr Tyr Ile Phe Asn Pro Thr Phe Val Val Pro Leu Ser Ala Phe Tyr
 130 135 140
 Leu Val Ile Leu Ile Val Ala Val Gly Asn Phe Lys Asn Arg Asp Glu
 145 150 155 160
 Arg Ile Met Lys Ala Lys Leu Glu Glu Lys Asn Lys Tyr Ile Asn Val
 165 170 175
 Leu Ile Ala Gln Gln Glu Arg Asn Arg Ile Ser Gln Asp Leu His Asp
 180 185 190
 Thr Leu Gly His Val Phe Ala Ser Leu Thr Leu Lys Ser Glu Leu Ala
 195 200 205
 Val Lys Leu Ile Asp Thr Asn Pro Lys Glu Ala Lys Asn Glu Met Gln
 210 215 220
 Ala Ile Asn Gln Leu Ser Thr Glu Ala Leu Asn Lys Val Arg Leu Ile
 225 230 235 240
 Ile Asp Asp Leu Lys Ile Gln Ser Phe Glu Asp Glu Ile Ser Ser Leu
 245 250 255
 Glu His Leu Leu Gln Asn Ala Asn Leu His Phe Lys Phe Asn Asn Lys
 260 265 270
 Ser Ala Ala Lys Ser Leu Asn Pro Ala Lys Gln Ser Ile Leu Ser Met
 275 280 285
 Ile Phe Arg Glu Ala Ile Asn Asn Val Ile Lys His Ala His Ala Thr
 290 295 300
 Glu Val Ile Gly Glu Leu Lys Val His Glu His Gln Ile Ile Leu Lys
 305 310 315 320
 Ile Lys Asp Asn Gly Val Gly Ile Glu Asn Glu Asp Ala Ser Asn Leu
 325 330 335
 Lys Ser Ile Lys Glu Arg Val Asp Tyr Leu Asn Gly Lys Leu Ile Val
 340 345 350
 Gln Ser Asn Asn Gly Thr Leu Ile Ile Val Glu Ile Pro Arg Gly Asp
 355 360 365
 Leu Leu
 370

<210> 4314

<211> 273

<212> PRT

<213> S.epidermidis

<400> 4314

Arg Phe Lys Cys Ile Tyr Phe Ile Asn Ile Tyr Arg Arg Arg Lys Ile
 1 5 10 15
 Met Ser Leu Leu Ser Lys Thr Arg Glu Leu Asn Thr Leu Leu Gln Lys

20 25 30
 His Lys Gly Ile Ala Val Asp Phe Lys Asp Val Ala Gln Thr Ile Ser
 35 40 45
 Asn Val Thr Val Thr Asn Val Phe Ile Val Ser Arg Arg Gly Lys Ile
 50 55 60
 Leu Gly Ser Cys Leu Asn Glu Leu Leu Lys Ser Glu Arg Ile Lys Asp
 65 70 75 80
 Met Leu Glu Asp Arg His Ile Pro Arg Glu Tyr Thr Glu Glu Leu Met
 85 90 95
 Asn Val Lys Gln Thr Glu Ser Asn Ile Asp Ile Asp Asn Glu Leu Thr
 100 105 110
 Val Phe Pro Pro Glu Asn Arg Glu Val Phe Leu Asn Ser Arg Thr Thr
 115 120 125
 Ile Phe Pro Ile Leu Gly Gly Gly Glu Arg Leu Gly Thr Leu Val Leu
 130 135 140
 Gly Arg Val Gln Asp Asp Phe Asn Glu Asn Asp Leu Val Leu Gly Glu
 145 150 155 160
 Tyr Ala Ala Thr Val Ile Gly Met Glu Ile Leu Arg Glu Lys His Asn
 165 170 175
 Glu Val Glu Lys Glu Ala Arg Asp Lys Ala Ala Ile Thr Met Ala Ile
 180 185 190
 Asn Ser Leu Ser Tyr Ser Glu Lys Glu Ala Ile Glu His Ile Phe Glu
 195 200 205
 Glu Leu Gly Gly Thr Glu Gly Leu Leu Ile Ala Ser Lys Val Ala Asp
 210 215 220
 Arg Val Gly Ile Thr Arg Ser Val Ile Val Asn Ala Leu Arg Lys Leu
 225 230 235 240
 Glu Ser Ala Gly Val Ile Glu Ser Arg Ser Leu Gly Met Lys Gly Thr
 245 250 255
 Phe Ile Lys Val Lys Lys Asp Lys Phe Leu Asp Glu Leu Glu Lys Asn
 260 265 270
 Lys

<210> 4315
 <211> 56
 <212> PRT
 <213> S.epidermidis

<400> 4315
 Phe Phe Ile Leu Val Tyr Ile Ile Tyr Ile Ile Gly Ser Cys Ile Tyr
 1 5 10 15
 Asn His Lys Ser Pro Ser Leu Asn Leu Gln Leu Asn Leu His Gly Ile
 20 25 30
 Tyr Ile Tyr Tyr Leu Gln Ser Phe Leu Leu Phe Thr Phe Leu Val Glu
 35 40 45
 Phe Ile Ile Ala Ile Tyr Ile Cys
 50 55

<210> 4316
 <211> 173
 <212> PRT
 <213> S.epidermidis

<400> 4316
 Ile Ile Ile Leu Glu Glu Leu Ser Thr Met Asn Ile Arg Lys Leu Thr

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1           5           10           15
Ile Thr Ala Phe Leu Ile Ala Ile Asn Val Val Leu Ser Ser Leu Ile
20           25           30
Val Ile Pro Leu Gly Pro Ile Lys Ala Ala Pro Val Gln His Phe Val
35           40           45
Asn Val Leu Cys Ala Val Phe Val Gly Pro Trp Tyr Gly Leu Ala Gln
50           55           60
Ala Phe Ile Ser Ser Val Leu Arg Ile Ser Phe Gly Thr Gly Ser Ala
65           70           75           80
Phe Ala Phe Pro Gly Ser Met Ile Gly Val Leu Leu Ser Ser Leu Phe
85           90           95
Tyr Met Tyr Arg Lys His Ile Phe Met Ala Ser Val Gly Glu Val Leu
100          105          110
Gly Thr Gly Val Ile Gly Ser Leu Met Cys Ile Pro Leu Ala Trp Phe
115          120          125
Leu Gly Leu Gln Asp Phe Phe Ile Lys Pro Leu Met Leu Met Phe Ile
130          135          140
Val Ser Ser Phe Ile Gly Ala Leu Ile Ser Tyr Ile Leu Leu Ile Ile
145          150          155          160
Leu Lys Arg Arg Gly Leu Leu Asp Arg Phe Asn Lys Asn
165          170

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<210> 4317
<211> 104
<212> PRT
<213> S.epidermidis

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<400> 4317
Leu Met Val Arg Thr Asp Leu Thr Ser Phe Arg Ser Gly Asp Thr Leu
1           5           10           15
Arg Val His Val Arg Ile Val Glu Gly Ser Arg Glu Arg Ile Gln Val
20           25           30
Phe Glu Gly Val Val Ile Lys Arg Gly Gly Gly Ile Ser Glu Thr
35           40           45
Phe Thr Val Arg Lys Ile Ser Ser Gly Val Gly Val Glu Arg Thr Phe
50           55           60
Pro Leu His Thr Pro Lys Ile Glu Lys Ile Glu Val Lys Arg Arg Gly
65           70           75           80
Lys Val Arg Arg Ala Lys Leu Tyr Tyr Leu Arg Ser Leu Arg Gly Lys
85           90           95
Ala Ala Arg Ile Gln Glu Ile Arg
100

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<210> 4318
<211> 50
<212> PRT
<213> S.epidermidis

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<400> 4318
Tyr Ser Tyr Arg Ile Lys Ile Lys Leu Tyr Ile Asn Lys Glu Pro Gly
1           5           10           15
Thr Leu Ile Asn Ile Pro Asp Ser Cys Val Asn Val Lys Thr Ile Ile
20           25           30
Asn Tyr Phe Val Ile His Gln Phe Leu Val Ser Ile Pro His Lys Val
35           40           45
Leu Leu

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50

<210> 4319

<211> 45

<212> PRT

<213> S.epidermidis

<400> 4319

Ala	Thr	Asp	Arg	Ile	Tyr	Gly	Gln	Trp	Leu	Ile	Lys	Tyr	Asn	Ile	Lys
1				5					10					15	
Asn	Arg	Ala	Tyr	Lys	Arg	Ser	Asp	Ile	Met	Ile	Tyr	Phe	Asn	Cys	Lys
		20					25						30		
Ser	Thr	Ser	Phe	Ile	Ser	Phe	Lys	Ile	Ser	Ala	Val	Ser			
	35						40					45			

<210> 4320

<211> 45

<212> PRT

<213> S.epidermidis

<400> 4320

Val	His	Thr	Leu	Ile	Ser	Phe	Ser	His	Ser	Ile	Cys	Met	Lys	Lys	Pro
1				5					10					15	
Asn	Ser	Ser	Leu	Arg	Phe	Lys	Met	Met	Phe	Ile	Ile	Asp	Asn	His	Ser
			20				25						30		
Gln	Leu	Ile	Thr	Phe	Ser	Tyr	Cys	Thr	Asn	Ile	Leu	Arg			
	35						40					45			

<210> 4321

<211> 234

<212> PRT

<213> S.epidermidis

<400> 4321

Met	Lys	Ala	Leu	Val	Ile	Gly	Gly	Ser	Gly	Thr	Ile	Gly	Arg	Ala	Ile
1				5					10					15	
Val	Lys	Arg	Leu	Leu	Phe	Glu	Gly	Tyr	Glu	Val	Phe	Leu	His	Tyr	His
		20					25						30		
Ser	Ala	Gln	Tyr	Ser	Asp	Leu	Ser	Asn	Gln	Phe	Lys	Asn	Ser	Lys	Val
	35						40					45			
Thr	Phe	Ile	Gln	Cys	Asp	Leu	Thr	Lys	Asp	Ile	Glu	Leu	Glu	Asp	Tyr
	50				55					60					
Phe	Gly	His	Ile	Asp	Glu	Leu	Asp	Cys	Leu	Ile	Tyr	Thr	Ser	Gly	Thr
65				70					75					80	
Ala	Leu	Tyr	Gly	Met	Leu	Gln	Asp	Met	Ser	Asp	Cys	Asp	Ile	Asp	Asn
			85					90					95		
Ser	Tyr	Ala	Leu	Asn	Val	Arg	Gln	Phe	Ile	Arg	Leu	Thr	Arg	Tyr	Phe
		100					105						110		
Ile	Asp	Ile	Leu	Arg	Gln	Ser	Asn	Gly	Arg	Ile	Ile	Val	Ile	Ser	
	115					120					125				
Ser	Ile	Trp	Gly	Glu	Thr	Gly	Ala	Ser	Leu	Glu	Thr	Ile	Tyr	Ser	Ala
	130					135					140				
Met	Lys	Ser	Ala	Gln	Ile	Gly	Phe	Val	Lys	Ala	Leu	Ser	Gln	Glu	Leu
145				150					155					160	
Ala	Leu	Thr	Ser	Val	Thr	Val	Asn	Ala	Ile	Thr	Pro	Gly	Met	Val	Lys
				165					170					175	

1553
 50
 <210> 4319
 <211> 45
 <212> PRT
 <213> S.epidermidis
 <400> 4319
 Ala Thr Asp Arg Ile Tyr Gly Gln Trp Leu Ile Lys Tyr Asn Ile Lys
 1 5 10 15
 Asn Arg Ala Tyr Lys Arg Ser Asp Ile Met Ile Tyr Phe Asn Cys Lys
 20 25 30
 Ser Thr Ser Phe Ile Ser Phe Lys Ile Ser Ala Val Ser
 35 40 45
 <210> 4320
 <211> 45
 <212> PRT
 <213> S.epidermidis
 <400> 4320
 Val His Thr Leu Ile Ser Phe Ser His Ser Ile Cys Met Lys Lys Pro
 1 5 10 15
 Asn Ser Ser Leu Arg Phe Lys Met Met Phe Ile Ile Asp Asn His Ser
 20 25 30
 Gln Leu Ile Thr Phe Ser Tyr Cys Thr Asn Ile Leu Arg
 35 40 45
 <210> 4321
 <211> 234
 <212> PRT
 <213> S.epidermidis
 <400> 4321
 Met Lys Ala Leu Val Ile Gly Gly Ser Gly Thr Ile Gly Arg Ala Ile
 1 5 10 15
 Val Lys Arg Leu Leu Phe Glu Gly Tyr Glu Val Phe Leu His Tyr His
 20 25 30
 Ser Ala Gln Tyr Ser Asp Leu Ser Asn Gln Phe Lys Asn Ser Lys Val
 35 40 45
 Thr Phe Ile Gln Cys Asp Leu Thr Lys Asp Ile Glu Leu Glu Asp Tyr
 50 55 60
 Phe Gly His Ile Asp Glu Leu Asp Cys Leu Ile Tyr Thr Ser Gly Thr
 65 70 75 80
 Ala Leu Tyr Gly Met Leu Gln Asp Met Ser Asp Cys Asp Ile Asp Asn
 85 90 95
 Ser Tyr Ala Leu Asn Val Arg Gln Phe Ile Arg Leu Thr Arg Tyr Phe
 100 105 110
 Ile Asp Ile Leu Arg Gln Ser Asn Gly Arg Ile Ile Val Ile Ser
 115 120 125
 Ser Ile Trp Gly Glu Thr Gly Ala Ser Leu Glu Thr Ile Tyr Ser Ala
 130 135 140
 Met Lys Ser Ala Gln Ile Gly Phe Val Lys Ala Leu Ser Gln Glu Leu
 145 150 155 160
 Ala Leu Thr Ser Val Thr Val Asn Ala Ile Thr Pro Gly Met Val Lys
 165 170 175

Gly Lys Met Ser Asp Val Trp Ser Lys Asp Glu Leu Ser Asn Ile Val
 180 185 190
 Ser Glu Leu Pro Gln Gln Arg Met Ile Asp Pro Ser Glu Val Ala His
 195 200 205
 Ala Cys Ala Tyr Leu Cys Ser Thr Met Ser Lys Ser Ile Thr Gly Thr
 210 215 220
 Val His Lys Val Asn Gly Gly Trp Tyr Ile
 225 230

<210> 4322

<211> 97

<212> PRT

<213> S.epidermidis

<400> 4322

Thr Ser Lys Arg Arg Arg Ile Asn His Glu Arg Glu Val Leu Lys Gln
 1 5 10 15
 Gln Ala Leu Asn Glu Gly Lys Pro Glu Lys Ile Val Glu Lys Met Val
 20 25 30
 Glu Gly Arg Leu Arg Lys Tyr Leu Gln Glu Ile Cys Ala Val Asp Gln
 35 40 45
 Asn Phe Val Lys Asn Pro Asp Glu Thr Val Glu Ala Phe Leu Lys Ala
 50 55 60
 Lys Gly Gly Lys Leu Thr Asp Phe Val Arg Tyr Glu Val Gly Glu Gly
 65 70 75 80
 Met Glu Lys Arg Glu Glu Asn Phe Ala Glu Glu Val Lys Gly Gln Met
 85 90 95
 Lys

<210> 4323

<211> 445

<212> PRT

<213> S.epidermidis

<400> 4323

Ser Cys Ser Arg Tyr Asn Leu Cys Thr Asn Glu Arg Arg Pro Thr Leu
 1 5 10 15
 Met Lys Thr His Gln Tyr Glu Leu Ile Asp Glu Lys Val Phe Glu His
 20 25 30
 Glu Phe Asp Asn Gly Leu Lys Leu Phe Ile Ile Pro Lys Pro Gly Phe
 35 40 45
 Gln Lys Thr Tyr Val Thr Tyr Thr Thr Gln Phe Gly Ser Leu Asp Asn
 50 55 60
 His Phe Lys Pro Ile Gly Ser Gln Gln Phe Val Lys Val Pro Asp Gly
 65 70 75 80
 Val Ala His Phe Leu Glu His Lys Leu Phe Glu Lys Glu Asp Glu Asp
 85 90 95
 Leu Phe Thr Ala Phe Ala Glu Glu Asn Ala Gln Ala Asn Ala Phe Thr
 100 105 110
 Ser Phe Asp Arg Thr Ser Tyr Leu Phe Ser Ala Thr Ser Asn Ile Glu
 115 120 125
 Ser Asn Ile Lys Arg Leu Leu Asn Met Val Glu Thr Pro Tyr Phe Thr
 130 135 140
 Glu Glu Thr Val Asn Lys Glu Lys Gly Ile Ile Ala Glu Glu Ile Lys
 145 150 155 160

Met Tyr Gln Glu Gln Pro Gly Tyr Lys Leu Met Phe Asn Thr Leu Arg
 165 170 175
 Ala Met Tyr Ser Lys His Pro Ile Arg Val Asp Ile Ala Gly Ser Val
 180 185 190
 Glu Ser Ile Tyr Glu Ile Thr Lys Asp Asp Leu Tyr Leu Cys Tyr Glu
 195 200 205
 Thr Phe Tyr His Pro Ser Asn Met Val Leu Phe Val Val Gly Asp Val
 210 215 220
 Ser Pro Gln Ser Ile Ile Lys Leu Val Glu Lys His Glu Asn Gln Arg
 225 230 235 240
 Asn Lys Thr Tyr Gln Pro Arg Ile Glu Arg Ala Gln Ile Asp Glu Pro
 245 250 255
 Arg Glu Ile Asn Gln Arg Phe Val Ser Glu Lys Met Lys Leu Gln Ser
 260 265 270
 Pro Arg Leu Met Leu Gly Phe Lys Asn Glu Pro Leu Asp Glu Ser Ala
 275 280 285
 Thr Lys Phe Val Gln Arg Asp Leu Glu Met Thr Phe Phe Tyr Glu Leu
 290 295 300
 Val Phe Gly Glu Glu Thr Glu Phe Tyr Gln Gln Leu Leu Asn Lys Asp
 305 310 315 320
 Leu Ile Asp Glu Thr Phe Gly Tyr Gln Phe Val Leu Glu Pro Ser Tyr
 325 330 335
 Ser Phe Ser Ile Ile Thr Ser Ala Thr Gln Gln Pro Asp Leu Phe Lys
 340 345 350
 Gln Leu Ile Met Asp Glu Leu Arg Lys Tyr Lys Gly Asn Leu Lys Asp
 355 360 365
 Gln Glu Ala Phe Asp Leu Leu Lys Lys Gln Phe Ile Gly Glu Phe Ile
 370 375 380
 Ser Ser Leu Asn Ser Pro Glu Tyr Ile Ala Asn Gln Tyr Ala Lys Leu
 385 390 395 400
 Tyr Phe Glu Gly Val Ser Val Phe Asp Met Leu Asp Ile Val Glu Asn
 405 410 415
 Ile Thr Leu Glu Ser Val Asn Glu Thr Ser Glu Leu Phe Leu Asn Phe
 420 425 430
 Asp Gln Leu Val Asp Ser Arg Leu Glu Met Glu Asn Arg
 435 440 445

<210> 4324

<211> 54

<212> PRT

<213> S.epidermidis

<400> 4324

Tyr Ile His Ser Ser Leu Val Gln Phe Met Leu Ser Cys Ser Thr Lys
 1 5 10 15
 Pro Asn Phe Thr Lys Asp Gly Val Ser Ser His Leu Pro Leu Thr Phe
 20 25 30
 Trp Cys Tyr Leu Asn Phe Ser Tyr Phe Thr Leu Leu Gln Lys Asn His
 35 40 45
 Asn Asn Ala Ile Ile Leu
 50

<210> 4325

<211> 40

<212> PRT

<213> S.epidermidis

<400> 4325

Cys Ser Arg Leu Tyr Leu Trp Met Phe Arg Asp Lys Cys Leu Lys Tyr
 1 5 10 15
 Ser Leu Phe Met Ala Tyr Asp Ser His His Phe Lys His Thr Leu Pro
 20 25 30
 Gln Arg Ile Met Leu Leu Ile Asn
 35 40

<210> 4326

<211> 299

<212> PRT

<213> S.epidermidis

<400> 4326

His Lys Ser Arg Gly Val Thr Ile Met Ile Glu Leu Arg His Ile Ser
 1 5 10 15
 Lys Ser Phe Lys Glu His Lys Val Leu Glu Asp Ile Ser Ile Asp Ile
 20 25 30
 Lys Asn Asn Cys Cys Thr Ala Leu Ile Gly Lys Asn Gly Ala Gly Lys
 35 40 45
 Ser Thr Leu Ile Asp Ile Ile Val Gly Asn Asn His Tyr Asp Ser Gly
 50 55 60
 Gln Ile Ala Asp Lys Ser Asn Leu Leu Asn Arg His Lys Met Gly Ile
 65 70 75 80
 Leu Phe Gln Lys Thr Glu Phe Pro Lys Tyr Ile Lys Val Cys Glu Leu
 85 90 95
 Leu His Leu Tyr Gln Ser Phe Tyr Gln Thr Phe Ile Ser Phe His Gln
 100 105 110
 Phe Lys Glu Ile Thr Gln Phe Ser Asp Arg Gln Met Asn Gln Phe Ala
 115 120 125
 Cys Asn Leu Ser Gly Gly Gln Gln Arg Ile Leu Asp Phe Ala Leu Ala
 130 135 140
 Leu Val Gly Lys Pro Glu Leu Leu Ile Leu Asp Glu Pro Thr Ser Ala
 145 150 155 160
 Met Asp Val Glu Met Arg Gln His Phe Trp Asn Val Ile Asp Lys Leu
 165 170 175
 Lys Met Asn Asn Thr Thr Ile Leu Tyr Thr Ser His Tyr Ile Glu Glu
 180 185 190
 Val Glu Arg Met Ala Asp Gln Val Met Met Leu Asp Lys Gly Lys Ile
 195 200 205
 Gln Leu Asp Asp Ser Pro Glu Asn Ile Lys Arg Asn Gln Ser Tyr Ser
 210 215 220
 Val Ile Arg Ile Pro Cys Lys Tyr Gln Glu Leu Ile Asn Gln Leu Lys
 225 230 235 240
 His Lys Tyr Glu Ile Glu Leu Ile Lys Asn Arg Tyr Glu Ile Lys Thr
 245 250 255
 Thr Asp Val Ser Asp Val Leu Gln Leu Leu Lys Gln Tyr His Val Asn
 260 265 270
 Phe Asn Lys Ile Glu Ile Leu Lys Ser Leu Leu Glu Val Met Phe
 275 280 285
 Ser Asn Asp Leu Ser Lys Gly Gly Asn Tyr Gln
 290 295

<210> 4327

<211> 367

<212> PRT

<213> S.epidermidis

<400> 4327

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Tyr Gln Glu Ser Leu Ser Cys Arg Gly Ser Leu Ile Ile Met Lys Arg
1          5          10          15
Trp Gln Gly Leu Val Lys Glu Phe Lys Glu Tyr Leu Pro Val Asn Gln
          20          25          30
Ser Thr Pro Ala Leu Thr Leu Asn Glu Gly His Thr Pro Leu Ile Tyr
          35          40          45
Cys Glu Asn Leu Ser Gln Lys Leu Asp Ile Glu Leu Tyr Val Lys Tyr
          50          55          60
Glu Gly Ala Asn Pro Thr Gly Ser Phe Lys Asp Arg Gly Met Val Met
65          70          75          80
Ala Val Thr Lys Ala Lys Glu Gln Gly Lys Lys Val Val Ile Cys Ala
          85          90          95
Ser Thr Gly Asn Thr Ser Ala Ser Ala Ala Tyr Ala Ala Arg Ala
          100          105          110
Gly Leu Lys Ala Ile Val Val Ile Pro Glu Gly Lys Ile Ala Leu Gly
          115          120          125
Lys Leu Ser Gln Ala Val Met Tyr Gly Ala Glu Ile Val Ser Ile Glu
          130          135          140
Gly Asn Phe Asp Glu Ala Leu Glu Ile Val Lys Glu Ile Ala Glu Glu
145          150          155          160
Asn Asp Glu Ile Glu Leu Val Asn Ser Val Asn Pro Phe Arg Ile Glu
          165          170          175
Gly Gln Lys Thr Gly Ala Phe Glu Ile Val Glu Gln Leu Asp Gly Gln
          180          185          190
Ala Pro Asp Ile Leu Ala Ile Pro Val Gly Asn Ala Gly Asn Ile Thr
          195          200          205
Ala Tyr Trp Gln Gly Phe Val Glu Tyr His Asn Lys Lys Asn Thr Gln
210          215          220
Leu Pro Gln Met Phe Gly Phe Gln Ala Glu Gly Ala Ser Pro Ile Val
225          230          235          240
Gln Asn Lys Ile Ile Lys Asn Pro Glu Thr Ile Ala Thr Ala Ile Arg
          245          250          255
Ile Gly Asn Pro Ala Ser Trp Gln Lys Ala Val Asn Ala Leu Asp Glu
          260          265          270
Ser Asn Gly Leu Ile Asp Ser Val Ile Asp Glu Glu Ile Leu Glu Ala
          275          280          285
Tyr Gln Leu Met Thr Thr Asn Glu Gly Val Phe Ser Glu Pro Ala Ser
290          295          300
Asn Ala Ser Ile Ala Gly Leu Ile Lys Leu His Arg Ser Gly Lys Leu
305          310          315          320
Pro Lys Gly Lys Lys Ile Val Ala Ile Leu Thr Gly Asn Gly Leu Lys
          325          330          335
Asp Pro Asp Thr Ala Ile Ser Leu Leu Asp Asn Pro Ile Gln Pro Leu
          340          345          350
Pro Asn Asn Lys Glu Ser Ile Ile Arg Tyr Ile Lys Gly Ala Ile
          355          360          365

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<210> 4328

<211> 40

<212> PRT

<213> S.epidermidis

<400> 4328

Arg Lys Arg Arg Ile Val Cys Asn Cys Phe Ile Asn Leu Arg Gln Thr
 1 5 10 15
 Lys Leu Ser Gln Val Phe Leu Met Lys Ile Ile Asn Val Ser Gln Leu
 20 25 30
 Lys Phe Tyr Tyr His Ile Cys Ile
 35 40

<210> 4329

<211> 424

<212> PRT

<213> S.epidermidis

<400> 4329

Ile Leu Lys Arg Phe Asn Gln Asp Asn Thr Lys Val Arg Val Asn Val
 1 5 10 15
 Leu Pro Thr Asp Lys Phe Lys Thr Thr Thr Ile Thr Phe Lys Phe Met
 20 25 30
 Ala Pro Leu Asn Tyr Lys Thr Ile Thr Ser Arg Ser Ile Leu Ser Lys
 35 40 45
 Val Leu Val Arg Ala Thr Gln Gln Trp Pro Thr Asp Lys Thr Leu Asn
 50 55 60
 Lys Gln Leu Ser Glu Leu Tyr Gly Ala Tyr Val Asn Ser Phe Val Ser
 65 70 75 80
 Lys Phe Lys Asp Lys His Val Ile Thr Ile Ser Leu Glu Val Val Asn
 85 90 95
 Glu Lys Phe Leu Lys Asp Lys Thr Pro Leu Phe Glu Lys Gly Leu Asp
 100 105 110
 Thr Leu Lys Glu Ile Ile Trp Asn Pro Leu Ile Lys Asp Arg Cys Phe
 115 120 125
 Asp His Thr Tyr Val Ala Gln Glu Lys Ser Leu Leu Ser Lys Lys Leu
 130 135 140
 Glu Ala Met Glu Asp Asn Lys Ala Gln Tyr Ser Phe Leu Gln Leu Met
 145 150 155 160
 Asn Tyr Met Phe Lys Gln Glu Pro Tyr Arg Tyr Ile Ala Thr Gly Gln
 165 170 175
 Leu Glu Gln Ile Pro Gln Val Thr Ser Glu Ser Leu Tyr Asp Thr Tyr
 180 185 190
 Leu Ser Met Val Gln Asn Asp Asp Cys Ala Ile Tyr Val Val Gly Asn
 195 200 205
 Ile Asn Lys Glu Glu Val Thr Gln Leu Ile Leu Asp Lys Phe Ala Ile
 210 215 220
 Lys Pro Phe Tyr Leu Glu Asn Lys Glu Ser Thr Glu Ile Thr Pro Ser
 225 230 235 240
 Phe Asp Gln Pro Gln Tyr Ile Ile Glu Lys Asp Asp Val Asp Gln Ala
 245 250 255
 Lys Leu Asn Leu Gly Tyr Arg Phe Pro Ser Tyr Tyr Gly Lys Ser Asn
 260 265 270
 Tyr Tyr Ala Phe Ile Val Leu Asn Met Met Phe Gly Gly Asp Pro Ser
 275 280 285
 Ser Val Leu Phe Asn Glu Val Arg Glu Lys Gln Ser Leu Ala Tyr Ser
 290 295 300
 Ile His Ser Gln Ile Asp Gly Lys Asn Gly Phe Leu Phe Val Leu Ser
 305 310 315 320
 Gly Val Ser Ala Glu Lys Tyr Glu Gln Ala Lys Asp Thr Val Ile Lys
 325 330 335

Glu Phe Asp Lys Ile Lys Asn Gly Asp Phe Asp Ser Asn Lys Ile Glu
 340 345 350
 Leu Ala Lys Lys Ile Ile Ile Ser His Arg His Glu Ala Ser Asp Arg
 355 360 365
 Pro Lys Ser Ile Ile Glu Ile Leu His Asn Gln Leu Leu Leu Asn Arg
 370 375 380
 Gln Gln Thr Asp Gln Asp Phe Ile Asn Ala Val Asn Gln Val Thr Lys
 385 390 395 400
 Lys Asp Val Ile Lys Leu Ala Asn Glu Ala Val Leu Asp Thr Ile Tyr
 405 410 415
 Val Leu Thr Lys Gly Asp Gln His
 420

<210> 4330

<211> 388

<212> PRT

<213> S.epidermidis

<400> 4330

Ile Ser Gly Ser Ile Ser Leu Met Asn Ile Ser Ile Val Ala Val Gly
 1 5 10 15
 Ser Glu Leu Leu Leu Gly Gln Ile Ala Asn Thr Asn Gly Gln Tyr Leu
 20 25 30
 Ser Lys Leu Phe Asn Ser Ile Gly Lys Ser Val Val Glu His Thr Val
 35 40 45
 Ile Gly Asp Asn Pro Gln Arg Leu Glu Tyr Val Ile Lys Gln Cys Leu
 50 55 60
 Ser Arg Phe Asp Thr Ile Val Leu Thr Gly Gly Leu Gly Pro Thr Lys
 65 70 75 80
 Asp Asp Leu Thr Lys His Thr Val Ala Lys Val Leu Gly Lys Asn Leu
 85 90 95
 Val Thr Asp Glu Ala Ser Leu Asn Phe Ile Lys Asn Tyr Phe Lys Glu
 100 105 110
 Gln Gly Gln Asp Met Thr Ser Asn Asn Lys Gln Gln Ala Leu Val Ile
 115 120 125
 Glu Asp Ala Ile Val Leu Pro Asn Lys Asn Gly Met Ala Pro Gly Met
 130 135 140
 Leu Val Glu Leu Gly Lys Gln Lys Ile Ile Leu Leu Pro Gly Pro Pro
 145 150 155 160
 Lys Glu Met Gln Pro Met Ala Lys Asn Glu Leu Leu Pro Tyr Leu Met
 165 170 175
 Asp Lys Asp Glu Val Ile Phe Ser Glu Leu Leu Arg Phe Ala Gly Ile
 180 185 190
 Gly Glu Ser Lys Leu Glu Thr Leu Leu Ile Asp Leu Ile Asp Asp Gln
 195 200 205
 Thr Asn Pro Thr Ile Ala Pro Leu Ala Gly Thr His Glu Val Tyr Phe
 210 215 220
 Arg Leu Thr Ala Asn Ala Glu Ser Lys Glu Arg Cys Gln Leu Leu Ile
 225 230 235 240
 Lys Pro Ile Arg Asp Glu Ile Leu Asn Arg Val Gly Thr Tyr Tyr Phe
 245 250 255
 Gly Ser Asp Glu Val Asn Ile Glu Glu Ser Val Ile Asn Ser Ala Lys
 260 265 270
 Gln Asn Phe Ala Ile Tyr Asp Gly Val Thr Asn Gly Ala Leu Phe Thr
 275 280 285
 Arg Leu Lys Asn Ala Asp Ser Lys Asn Leu Val Lys Gly Met Leu Pro

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20 25 30
 Lys Gln Met Leu Asp Tyr Gly Thr Gln Ile Val Ala Gly Val Thr Pro
 35 40 45
 Gly Lys Gly Gly Gln Val Val Glu Gly Val Pro Val Tyr Asn Thr Val
 50 55 60
 Glu Glu Ala Lys Asn Glu Thr Gly Ala Asn Val Ser Val Val Tyr Val
 65 70 75 80
 Pro Ala Pro Phe Ala Ala Asp Ser Ile Ile Glu Ala Ala Asp Ala Asp
 85 90 95
 Leu Asp Met Val Ile Cys Ile Thr Glu His Ile Pro Val Val Asp Met
 100 105 110
 Val Lys Val Lys Arg Tyr Leu Gln Gly Arg Lys Thr Arg Leu Val Gly
 115 120 125
 Pro Asn Cys Pro Gly Val Ile Thr Ala Asp Glu Cys Lys Ile Gly Ile
 130 135 140
 Met Pro Gly Tyr Ile His Lys Lys Gly His Val Gly Val Val Ser Arg
 145 150 155 160
 Ser Gly Thr Leu Thr Tyr Glu Ala Val His Gln Leu Thr Glu Glu Gly
 165 170 175
 Ile Gly Gln Thr Thr Ala Val Gly Ile Gly Gly Asp Pro Val Asn Gly
 180 185 190
 Thr Asn Phe Ile Asp Val Leu Lys Ala Phe Asn Glu Asp Ser Glu Thr
 195 200 205
 Lys Ala Val Val Met Ile Gly Glu Ile Gly Gly Thr Ala Glu Glu Glu
 210 215 220
 Ala Ala Gln Trp Ile Lys Glu Asn Met Asn Lys Pro Val Val Gly Phe
 225 230 235 240
 Ile Gly Gly Gln Thr Ala Pro Pro Gly Lys Arg Met Gly His Ala Gly
 245 250 255
 Ala Ile Ile Ser Gly Gly Lys Gly Thr Ala Ser Glu Lys Ile Lys Thr
 260 265 270
 Leu Asn Asp Cys Gly Val Glu Thr Ala Asp Thr Pro Ser Glu Ile Gly
 275 280 285
 Thr Thr Leu Ile Asp Ala Ala Lys Lys Ala Gly Ile Tyr Glu Glu Leu
 290 295 300
 Leu Thr Ile Lys Lys
 305

<210> 4333

<211> 424

<212> PRT

<213> S.epidermidis

<400> 4333

Asn Lys Phe Gly Ile Pro Asn Leu Phe Phe Phe Ile Leu Cys Met Ser
 1 5 10 15
 Pro Leu Ile Ile Gly Gly Leu Lys Leu Asn Arg Ser Val Leu Lys Phe
 20 25 30
 Gly Gly Ser Ser Val Ser Asp Phe Lys Lys Ile Lys Asn Ile Ala Glu
 35 40 45
 Met Leu Lys Thr Arg Ile Glu Asp Gly Glu Glu Leu Ile Val Val Val
 50 55 60
 Ser Ala Met Gly Lys Thr Asp Gln Leu Met Asn Asn Val Ser Ser
 65 70 75 80
 Leu Thr Ser Thr Pro Lys Asp Gln Glu Leu Ala Leu Leu Leu Thr Thr
 85 90 95

Gly Glu Gln Gln Thr Val Ser Tyr Leu Ser Met Val Leu Asn Asp Ile
 100 105 110
 Gly Val Asn Ala Lys Ala Met Thr Gly Tyr Gln Ala Gly Ile Lys Thr
 115 120 125
 Val Gly His His Leu Lys Ser Lys Ile Ala Glu Ile Asn Pro Asn Ile
 130 135 140
 Phe Asn Glu Ala Phe Lys Asn His Asp Ile Leu Val Val Ala Gly Phe
 145 150 155 160
 Gln Gly Ile Asn Glu Asp Phe Glu Leu Thr Thr Leu Gly Arg Gly Gly
 165 170 175
 Ser Asp Thr Thr Ala Val Ala Leu Ala Ala Ser Asn Gln Thr Pro Cys
 180 185 190
 Glu Ile Tyr Thr Asp Val Asp Gly Val Tyr Ala Thr Asp Pro Arg Ile
 195 200 205
 His Asn Glu Ala Lys Arg Leu Glu Tyr Val Ser Tyr Glu Glu Met Met
 210 215 220
 Glu Met Ser Ala Leu Gly Ala Gly Val Leu Glu Thr Arg Ser Val Glu
 225 230 235 240
 Leu Ala Lys Asn Tyr Asp Ile Pro Leu Tyr Leu Gly Arg Thr Leu Ser
 245 250 255
 Asn Val Lys Gly Thr Trp Ile Met Ser Lys Ser Asp Leu Leu Glu Lys
 260 265 270
 Lys Ala Val Thr Gly Val Ala Leu Asp Thr His Met Met His Val Thr
 275 280 285
 Ile Ser Tyr Pro Leu Pro Asp Asn Gln Leu Leu Thr Gln Leu Phe Thr
 290 295 300
 Ala Leu Glu Glu Glu Ser Val Asn Val Asp Met Ile Ser Gln Ile Val
 305 310 315 320
 Asn Leu Glu Gly Leu Gln Leu Ser Phe Ser Ile Lys Asp Ser Asp Ala
 325 330 335
 His Gln Ile Ser Ser Ile Leu Glu Asn Leu Ser Thr His Phe Ser Ala
 340 345 350
 Leu Asp Tyr Lys Ile Asn Glu Ala Tyr Val Lys Ile Ser Leu Ile Gly
 355 360 365
 Ser Gly Met Arg Asp Met Ser Gly Val Ala Ser Lys Ala Phe Thr Thr
 370 375 380
 Leu Ile Asn Ser Asp Ile Pro Phe Tyr Gln Thr Thr Thr Ser Glu Ile
 385 390 395 400
 Ser Ile Ser Tyr Val Ile Asp Glu Glu Asn Gly Glu Lys Ala Val Glu
 405 410 415
 Glu Leu Tyr His Ala Phe Glu Ile
 420

<210> 4334

<211> 276

<212> PRT

<213> S.epidermidis

<400> 4334

Leu Leu Lys Gly Val Leu Tyr Tyr Met Thr Gln Tyr Lys Met Val Val
 1 5 10 15
 Leu Asp Met Asp Asp Thr Leu Met Asn Ser Asp Asn Lys Leu Ser Ile
 20 25 30
 Glu Thr Lys Ser Tyr Leu Leu Asp Ile Gln Lys Arg Gly Tyr Tyr Val
 35 40 45
 Val Leu Ala Ser Gly Arg Pro Thr Glu Gly Met Leu Pro Thr Ala Arg

50		55		60
Glu Leu Glu Leu Asn Lys Tyr Asn Ser Phe Ile Ile Ser Tyr Asn Gly				
65		70		75
Gly Lys Thr Ile Asn Met Ala Asn Glu Asn Val Glu Val Asp Gln Pro				80
	85		90	95
Val Ser Lys Glu Asp Phe Asp Asn Ile Val Asp Tyr Cys Arg Asp Lys				
	100		105	110
Asn Phe Leu Val Leu Thr Tyr Asp Asn Gly Tyr Ile Ile His Asp Ser				
	115		120	125
Ser His Glu Tyr Met Asn Ile Glu Ser Gln Leu Thr Gly Leu Pro Met				
	130		135	140
Asn Arg Val Ala Asp Leu Lys Glu Tyr Ile Asn His Ser Val Pro Lys				
	145		150	155
Val Met Gly Val Asp Tyr Val Gly His Ile Thr Glu Ala Arg Ile Glu				
	165		170	175
Leu Asp Gly Tyr Phe Asn Asn Asp Ile Asp Val Thr Thr Ser Lys Pro				
	180		185	190
Phe Phe Leu Glu Phe Met Ala Lys Asn Val Ser Lys Gly Asn Ala Ile				
	195		200	205
Lys Ala Leu Cys Lys Arg Leu Gln Ile Ser Leu Glu Glu Val Ile Val				
	210		215	220
Phe Gly Asp Ser Leu Asn Asp Lys Ser Met Phe Glu Val Ala Gly Tyr				
	225		230	235
Ser Val Ala Met Gly Asn Ala Ser Asp Glu Leu Lys Lys Ile Ala Asp				
	245		250	255
Glu Val Thr Leu Asp Asn Asn Ser Asn Gly Ile Pro Tyr Ala Leu Lys				
	260		265	270
Glu Leu Leu Val				
	275			

<210> 4335

<211> 603

<212> PRT

<213> S.epidermidis

<400> 4335

Met Ser Glu Gly Leu Pro Leu Arg Glu Glu Val Pro Val Lys Glu Thr				
1	5		10	15
Trp Asp Leu Lys Asp Leu Phe Thr Ser Asp Gln Ala Phe Tyr Gln Thr				
	20		25	30
Leu Glu Gln Val Val Gln Met Ser Leu Asp Phe Asn His Thr Tyr Tyr				
	35		40	45
Gln Lys Leu Asn Asn Ile Glu Thr Ile Glu Lys Ala Leu Asp Glu Tyr				
	50		55	60
Glu Arg Ile Leu Ile Glu Ile Asp Arg Leu Tyr Asn Tyr Pro Glu Leu				
	65		70	75
Arg Leu Ser Val Asp Thr Ser Asn Glu Glu Ala Gln Lys Val Asn Ala				
	85		90	95
Lys Leu Asn Thr Thr Ser Gly Lys Leu Ala Gly Leu Leu Ser Phe Val				
	100		105	110
Asp Ser Glu Ile Leu Glu Leu Pro Asp Glu Ile Ile Ser Glu Leu Arg				
	115		120	125
Ser Gln Thr Lys Tyr Pro His Phe Ile Lys Gln Leu Gln Asp Arg Lys				
	130		135	140
Pro Tyr Gln Leu Ser Ala Asp Val Glu Lys Val Leu Ala Thr Leu Thr				
	145		155	160


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<210> 4336
<211> 474
<212> PRT
<213> S.epidermidis
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<400> 4336

1	Tyr	Gly	Gly	Met	Leu	Asn	Met	Asp	Thr	Asn	Gly	Ile	Lys	Leu	Thr
Pro	Lys	Asp	Ile	Val	Ser	Lys	Leu	Asn	Glu	Tyr	Ile	Val	Gly	Gln	Asn
Asp	Ala	Lys	Arg	Lys	Val	Ala	Ile	Ala	Leu	Arg	Asn	Arg	Tyr	Arg	Arg
Ser	Leu	Leu	Lys	Glu	Glu	Glu	Lys	Gln	Glu	Ile	Ala	Pro	Lys	Asn	Ile
Leu	Met	Ile	Gly	Pro	Thr	Gly	Val	Gly	Lys	Thr	Glu	Ile	Ala	Arg	Arg
65	Met	Ala	Lys	Ile	Val	Gly	Ala	Pro	Phe	Ile	Lys	Val	Glu	Ala	Thr
Met	Ala	Lys	Ile	Val	Gly	Ala	Pro	Phe	Ile	Lys	Val	Glu	Ala	Thr	Lys
Phe	Thr	Glu	Val	Gly	Tyr	Val	Gly	Arg	Asp	Val	Glu	Ser	Met	Val	Arg
Asp	Leu	Val	Asp	Val	Ala	Val	Arg	Leu	Val	Lys	Asp	Gly	Lys	Lys	Ser
Leu	Val	Lys	Asp	Glu	Ala	Thr	Lys	Lys	Ala	Asn	Asp	Lys	Leu	Val	Lys
Leu	Leu	Val	Pro	Ser	Leu	Lys	Lys	Lys	Ala	Ala	Gln	Gly	Asn	Asn	Pro
145	Leu	Glu	Asn	Leu	Phe	Gly	Gly	Ala	Ile	Pro	Asn	Phe	Gly	Gln	Asn
Leu	Glu	Asn	Leu	Phe	Gly	Gly	Ala	Ile	Pro	Asn	Phe	Gly	Gln	Asn	Gln
Asp	Glu	Glu	Glu	Glu	Pro	Pro	Thr	Glu	Glu	Ile	Lys	Thr	Lys	Arg	Ser
Glu	Ile	Lys	Lys	Gln	Leu	Glu	Gln	Gly	Lys	Leu	Glu	Asn	Glu	Lys	Val
Arg	Ile	Lys	Val	Glu	Gln	Asp	Pro	Ala	Ser	Met	Gly	Met	Leu	Gly	Thr
Asn	Gln	Asn	Gln	Gln	Ile	Gln	Asp	Met	Met	Asn	Gln	Leu	Met	Pro	Lys
225	Lys	Lys	Val	Glu	Arg	Glu	Val	Ser	Val	Glu	Thr	Ala	Arg	Lys	Ile
Lys	Lys	Val	Glu	Arg	Glu	Val	Ser	Val	Glu	Thr	Ala	Arg	Lys	Ile	Leu
Ala	Asp	Asp	Phe	Ala	Asp	Glu	Leu	Ile	Asp	Gln	Glu	Thr	Ala	Asn	Gln
Gln	Ala	Leu	Glu	Leu	Ala	Glu	Gln	Met	Gly	Ile	Ile	Phe	Ile	Asp	Glu
Ile	Asp	Lys	Val	Ala	Thr	Asn	Asn	Gln	Asn	Ser	Gly	Gln	Asp	Val	Ser
Arg	Gln	Gly	Val	Gln	Arg	Asp	Ile	Leu	Pro	Ile	Leu	Glu	Gly	Ser	Met
305	Ile	Gln	Thr	Lys	Tyr	Gly	Thr	Val	Asn	Thr	Glu	His	Met	Leu	Phe
Ile	Gln	Thr	Lys	Tyr	Gly	Thr	Val	Asn	Thr	Glu	His	Met	Leu	Phe	Ile
Gly	Ala	Gly	Ala	Phe	His	Val	Ser	Lys	Pro	Ser	Asp	Leu	Ile	Pro	Glu
Leu	Gln	Gly	Arg	Phe	Pro	Ile	Arg	Val	Glu	Leu	Glu	Ser	Leu	Ser	Val
Glu	Asp	Phe	Val	Arg	Ile	Leu	Thr	Glu	Pro	Lys	Leu	Ser	Leu	Val	Lys
Gln	Tyr	Glu	Ala	Leu	Leu	Gln	Thr	Glu	Glu	Val	Thr	Val	Asn	Phe	Ser

385 390 395 400
 Glu Asp Ala Ile Gln Arg Leu Ala Glu Ile Ala Tyr Gln Val Asn Gln
 405 410 415
 Asp Thr Asp Asn Ile Gly Ala Arg Arg Leu His Thr Ile Leu Glu Lys
 420 425 430
 Met Leu Glu Asp Leu Ser Phe Glu Ala Pro Ser Met Pro Asn Ala Val
 435 440 445
 Val Asp Ile Thr Pro Gln Tyr Val Asp Asp Lys Leu Lys Ser Ile Ser
 450 455 460
 Thr Asn Lys Asp Leu Ser Ala Phe Ile Leu
 465 470

<210> 4337

<211> 394

<212> PRT

<213> S.epidermidis

<400> 4337

Glu Thr Gly Gly Trp Lys Met Asn Ile His Glu Tyr Gln Gly Lys Glu
 1 5 10 15
 Ile Phe Arg Ser Met Gly Val Ala Val Pro Glu Gly Arg Val Ala Phe
 20 25 30
 Thr Ala Glu Glu Ala Val Glu Lys Ala Lys Glu Leu Asn Ser Asp Val
 35 40 45
 Tyr Val Val Lys Ala Gln Ile His Ala Gly Gly Arg Gly Lys Ala Gly
 50 55 60
 Gly Val Lys Ile Ala Lys Ser Leu Ser Glu Val Glu Thr Tyr Ala Asn
 65 70 75 80
 Glu Leu Leu Gly Lys Gln Leu Val Thr His Gln Thr Gly Pro Glu Gly
 85 90 95
 Lys Glu Val Lys Arg Leu Tyr Ile Glu Glu Gly Cys Asp Ile Gln Lys
 100 105 110
 Glu Tyr Tyr Val Gly Phe Val Ile Asp Arg Ala Thr Asp Lys Val Thr
 115 120 125
 Leu Met Ala Ser Glu Glu Gly Thr Glu Ile Glu Glu Val Ala Ala
 130 135 140
 Gln Thr Pro Glu Lys Ile Phe Lys Glu Thr Ile Asp Pro Val Val Gly
 145 150 155 160
 Leu Ser Pro Tyr Gln Ala Arg Arg Ile Ala Phe Asn Ile Asn Ile Pro
 165 170 175
 Lys Glu Ser Val Gly Lys Ala Thr Lys Phe Leu Leu Ala Leu Tyr Asn
 180 185 190
 Val Phe Ile Glu Lys Asp Cys Ser Ile Val Glu Ile Asn Pro Leu Val
 195 200 205
 Thr Thr Gly Asp Gly Gln Val Leu Ala Leu Asp Ala Lys Leu Asn Phe
 210 215 220
 Asp Asp Asn Ala Leu Phe Lys His Lys Asp Ile Leu Glu Leu Arg Asp
 225 230 235 240
 Leu Glu Glu Glu Asp Pro Lys Glu Ile Glu Ala Ser Lys Tyr Asp Leu
 245 250 255
 Ser Tyr Ile Ala Leu Asp Gly Asp Ile Gly Cys Met Val Asn Gly Ala
 260 265 270
 Gly Leu Ala Met Ala Thr Met Asp Thr Ile Asn His Phe Gly Gly Asn
 275 280 285
 Pro Ala Asn Phe Leu Asp Val Gly Gly Gly Ala Thr Lys Glu Lys Val
 290 295 300

Ala Val Pro Val Met Lys Ile Phe Lys Tyr Phe Tyr Ser Asn Arg Gly
 65 70 75 80
 Pro Val Ile Asp Tyr Asn Asn Lys Glu Leu Val His Phe Phe Phe Asn
 85 90 95
 Glu Leu Ser Lys Tyr Val Lys Lys Tyr Asn Cys Leu Tyr Leu Arg Val
 100 105 110
 Asp Pro Tyr Leu Pro Tyr Gln Tyr Leu Asn His Glu Gly Glu Ile Thr
 115 120 125
 Gly Asn Ala Gly His Asp Trp Ile Phe Asp Glu Leu Glu Ser Leu Gly
 130 135 140
 Tyr Lys His Glu Gly Phe His Lys Gly Phe Asp Pro Val Leu Gln Ile
 145 150 155 160
 Arg Tyr His Ser Val Leu Asn Leu Ala Asn Lys Ser Ala Asn Asp Val
 165 170 175
 Leu Lys Asn Met Asp Gly Leu Arg Lys Arg Asn Thr Lys Lys Val Lys
 180 185 190
 Lys Asn Gly Val Lys Val Arg Phe Leu Ser Glu Glu Glu Leu Pro Ile
 195 200 205
 Phe Arg Ser Phe Met Glu Asp Thr Ser Glu Thr Lys Asp Phe Ala Asp
 210 215 220
 Arg Glu Asp Ser Phe Tyr Tyr Asn Arg Phe Lys His Tyr Lys Asp Arg
 225 230 235 240
 Val Leu Val Pro Leu Ala Tyr Ile Asn Phe Asp Glu Tyr Ile Glu Glu
 245 250 255
 Leu Asn Asn Glu Arg Asn Val Leu Asn Lys Asp Tyr Asn Lys Ala Leu
 260 265 270
 Lys Asp Ile Glu Lys Arg Pro Glu Asn Lys Lys Ala His Asn Lys Lys
 275 280 285
 Glu Asn Leu Glu Gln Gln Leu Asp Ala Asn Gln Gln Lys Ile Asn Glu
 290 295 300
 Ala Lys Asn Leu Lys Gln Glu His Gly Asn Glu Leu Pro Ile Ser Ala
 305 310 315 320
 Gly Phe Phe Ile Ile Asn Pro Phe Glu Val Val Tyr Tyr Ala Gly Gly
 325 330 335
 Thr Ser Asn Arg Tyr Arg His Phe Ala Gly Ser Tyr Ala Val Gln Trp
 340 345 350
 Lys Met Ile Asn Tyr Ala Ile Glu His Gly Ile Asn Arg Tyr Asn Phe
 355 360 365
 Tyr Gly Ile Ser Gly Asp Phe Ser Glu Asp Ala Glu Asp Ala Gly Val
 370 375 380
 Val Lys Phe Lys Lys Gly Tyr Asp Ala Asp Val Ile Glu Tyr Val Gly
 385 390 395 400
 Asp Phe Ile Lys Pro Ile Asn Lys Pro Met Tyr Asn Ile Tyr Arg Thr
 405 410 415
 Leu Lys Lys Leu Lys Lys
 420

<210> 4342

<211> 263

<212> PRT

<213> S.epidermidis

<400> 4342

Val Met Thr Ile Leu Asn Glu Ile Ile Glu Tyr Lys Lys Thr Leu Leu
 1 5 10 15
 Glu Arg Lys Tyr Tyr Asp Lys Lys Leu Glu Ile Leu Gln Asp Asn Gly

<210> 4344
 <211> 498
 <212> PRT
 <213> S.epidermidis

<400> 4344

Ile	Tyr	Tyr	Ile	Leu	Leu	Ile	Lys	Val	Val	Pro	Arg	Val	Ser	Val	Leu
1				5					10					15	
Ile	Thr	Lys	Glu	Ala	Asp	Phe	Phe	Arg	Lys	Arg	Arg	Lys	Ser	Met	Asp
			20					25					30		
Ile	Val	Tyr	Lys	Lys	Val	Asn	Ala	Gln	Ile	Thr	Pro	Glu	Ala	Leu	Ala
		35					40					45			
Lys	Leu	Lys	Gln	Lys	Lys	Ile	Ile	Phe	Glu	Ser	Thr	Asn	Gln	Gln	Lys
	50					55					60				
Leu	Lys	Gly	Arg	Tyr	Ser	Ile	Val	Val	Phe	Asp	His	Tyr	Gly	Lys	Ile
65					70					75					80
Thr	Leu	Asp	Asn	Ser	Gln	Leu	Leu	Ile	Lys	Leu	Asp	Asn	His	Cys	Glu
				85					90					95	
Ile	Val	Lys	Asn	Gln	Pro	Tyr	Gln	Arg	Leu	Lys	Glu	Phe	Val	Asp	Lys
			100					105					110		
Tyr	Tyr	Phe	Glu	Ile	Lys	Asp	Lys	Tyr	Leu	Lys	Asp	Leu	Pro	Phe	Ile
		115				120						125			
Ser	Gly	Phe	Ile	Gly	Thr	Cys	Ser	Phe	Asp	Leu	Val	Arg	His	Glu	Phe
	130					135					140				
Lys	Lys	Leu	Gln	Asp	Ile	Lys	Leu	Glu	Asp	His	Gln	Thr	His	Asp	Val
145					150					155					160
Gln	Phe	Tyr	Leu	Val	Glu	Asp	Val	Phe	Val	Phe	Asp	His	Tyr	Lys	Asp
			165						170					175	
Glu	Leu	Tyr	Ile	Ile	Ala	Ser	Asn	Leu	Phe	Ser	Asp	Arg	Thr	Lys	Glu
		180						185					190		
Arg	Leu	Lys	Glu	Ser	Ile	Glu	Arg	Lys	Ile	Glu	Asp	Leu	Lys	Asn	Ile
		195					200					205			
His	Phe	Ser	Val	Glu	Asp	Ile	Asn	Tyr	Lys	Ser	Ile	Pro	Arg	His	Ile
	210					215					220				
Thr	Thr	Asn	Ile	Ser	Glu	Gln	Gln	Phe	Val	Gln	Thr	Ile	Arg	Ile	Leu
225				230						235					240
Lys	Lys	Lys	Ile	Thr	Glu	Gly	Asp	Met	Phe	Gln	Val	Val	Pro	Ser	Arg
			245						250					255	
Ile	Tyr	Ser	Tyr	Lys	His	His	Phe	Gln	His	Asn	Leu	His	Gln	Leu	Thr
		260					265						270		
Phe	Gln	Leu	Tyr	Gln	Asn	Leu	Lys	Arg	Gln	Asn	Pro	Ser	Pro	Tyr	Met
		275					280				285				
Tyr	Tyr	Ile	Asn	Lys	Asp	Val	Pro	Ile	Val	Ile	Gly	Ser	Ser	Pro	Glu
	290					295					300				
Ser	Phe	Val	Lys	Val	Lys	Asp	Gly	Lys	Val	Tyr	Thr	Asn	Pro	Ile	Ala
305					310					315					320
Gly	Thr	Ile	Lys	Arg	Gly	Gln	Asn	Lys	Lys	Glu	Asp	Glu	Asn	Asn	Glu
			325						330					335	
Lys	Thr	Leu	Met	Lys	Asp	Glu	Lys	Glu	Leu	Ser	Glu	His	Arg	Met	Leu
		340						345					350		
Val	Asp	Leu	Gly	Arg	Asn	Asp	Ile	His	Arg	Ile	Ser	Lys	Thr	Gly	Thr
	355						360					365			
Ser	Gln	Ile	Thr	Lys	Leu	Met	Thr	Ile	Glu	Arg	Tyr	Glu	His	Val	Met
	370					375					380				
His	Ile	Val	Ser	Glu	Val	Ile	Gly	Glu	Leu	Lys	Pro	His	Leu	Ser	Pro

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<210> 4345
<211> 1362
<212> PRT
<213> S.epidermidis
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<400> 4345															
Gln 1	Leu	Ile	Phe	Gln 5	Leu	Lys	Ile	Pro	Thr 10	Ile	Lys	Met	Ser	Phe 15	Ala
Leu	Lys	Tyr	Phe 20	Gly	His	Cys	Ile	Asp 25	Gln	Thr	Arg	Leu	Ser 30	Pro	Lys
Val	Lys	Gly 35	Gln	Leu	Lys	Gln	Lys 40	Lys	Leu	Ile	Met	Ser 45	Gly	Asn	Val
Leu	Lys 50	Val	Leu	Val	Ser	Asn 55	Asp	Ile	Glu	Arg	Asn 60	His	Phe	Asp	Arg
Ala 65	Cys	Asn	Gly	Ser	Leu 70	Val	Lys	Ala	Phe	Arg 75	Gln	Cys	Gly	Phe 80	Glu
Ile	Asp	Lys	Val	Val 85	Phe	Glu	Thr	Asp	Ser 90	Thr	Asn	His	Asp	Asp 95	Asp
Leu	Gly	Ser	Leu 100	Glu	Ala	His	Ile	Pro 105	Gln	Glu	Asp	Glu	Gln 110	Ser	Ala
Arg	Glu	Ala 115	Thr	Glu	Lys	Leu	Glu 120	Lys	Met	Lys	Ala	Glu 125	Lys	Ala	Lys
Gln	Gln 130	Asp	Asn	Asn	Glu	Ser 135	Thr	Val	Glu	Lys	Cys 140	Gln	Ile	Gly	Lys
Pro 145	Ile	Gln	Ile	Glu	Asn 150	Ile	Lys	Pro	Ile	Glu	Ser 155	Ile	Ile	Glu	Glu 160
Glu	Phe	Lys	Val	Ala 165	Ile	Glu	Gly	Val	Ile	Phe	Asp 170	Ile	Asn	Leu 175	Lys
Glu	Leu	Lys	Ser 180	Gly	Arg	His	Ile	Val 185	Glu	Leu	Lys	Val	Thr 190	Asp	Tyr
Thr	Asp	Ser 195	Leu	Val	Leu	Lys	Met 200	Phe	Thr	Arg	Lys	Asn 205	Lys	Asp	Asp
Leu	Asp 210	His	Phe	Lys	Ala	Leu 215	Ser	Val	Gly	Lys	Trp 220	Val	Arg	Ala	Gln
Gly 225	Arg	Ile	Glu	Glu	Asp 230	Thr	Phe	Val	Arg	Asp 235	Leu	Val	Met	Met	Met 240
Ser	Asp	Ile	Glu 245	Glu	Ile	Lys	Lys	Thr	Pro 250	Lys	Gln	Asp	Lys	Ala 255	Glu
Asp	Lys	Arg	Val 260	Glu	Phe	His	Leu	His 265	Thr	Ser	Met	Ser	Gln 270	Met	Asp

1575

Glu Asn Asn Val Pro Asp Trp Tyr Leu Asp Ser Cys Arg Lys Ile Lys
 1170 1175 1180
 Tyr Met Phe Pro Lys Ala His Ala Ala Ala Tyr Val Leu Met Ala Val
 1185 1190 1195 1200
 Arg Ile Ala Tyr Phe Lys Val His His Pro Leu Tyr Tyr Tyr Ala Ala
 1205 1210 1215
 Tyr Phe Thr Ile Arg Ala Ser Asp Phe Asp Leu Ile Thr Met Ile Lys
 1220 1225 1230
 Asp Lys Thr Ser Ile Arg Asn Thr Val Lys Asp Met Tyr Ser Arg Tyr
 1235 1240 1245
 Met Asp Leu Gly Lys Lys Glu Lys Asp Val Leu Thr Val Leu Glu Ile
 1250 1255 1260
 Met Asn Glu Met Ala His Arg Gly Phe Arg Leu Gln Pro Ile Ser Leu
 1265 1270 1275 1280
 Glu Lys Ser Gln Ala Phe Asp Phe Ile Ile Glu Gly Asp Thr Leu Ile
 1285 1290 1295
 Pro Pro Phe Ile Ser Val Pro Gly Leu Gly Glu Asn Val Ala Gln Arg
 1300 1305 1310
 Ile Val Glu Ala Arg Glu Glu Gly Pro Phe Leu Ser Lys Glu Asp Leu
 1315 1320 1325
 Asn Lys Lys Ala Gly Leu Ser Gln Lys Val Ile Asp Tyr Leu Asp Glu
 1330 1335 1340
 Leu Gly Ser Leu Pro Asp Leu Pro Asp Lys Ala Gln Leu Ser Ile Phe
 1345 1350 1355 1360
 Asp Met

<210> 4346
 <211> 53
 <212> PRT
 <213> S.epidermidis

<400> 4346
 Leu Thr Tyr Met Phe Thr Leu Met Ile Lys Leu Lys Phe Glu Ser Pro
 1 5 10 15
 Phe His Leu Leu Ser Cys Ala Asn Leu His Leu Pro Leu Ala Phe Cys
 20 25 30
 Leu Leu Gln Asn Ile Met Ile Thr Leu Ser Ile Lys Leu Ser Asp Phe
 35 40 45
 Ser Asn Tyr Leu Val
 50

<210> 4347
 <211> 504
 <212> PRT
 <213> S.epidermidis

<400> 4347
 Arg Ser His Ile Pro Met Glu Lys Tyr Ile Leu Ser Ile Asp Gln Gly
 1 5 10 15
 Thr Thr Ser Ser Arg Ala Ile Leu Phe Asn Lys Glu Gly Glu Ile Lys
 20 25 30
 Gly Val Ser Gln Arg Glu Phe Lys Gln His Phe Pro His Pro Gly Trp
 35 40 45
 Val Glu His Asp Ala Asn Glu Ile Trp Thr Ser Val Leu Ser Val Met
 50 55 60

GenBank: E05441

Ala 65	Glu	Leu	Leu	Asn	Glu 70	Asn	Asn	Ile	Asn	Ala 75	Asn	Gln	Ile	Glu	Gly 80
Ile	Gly	Ile	Thr	Asn 85	Gln	Arg	Glu	Thr	Thr 90	Val	Val	Trp	Asp	Lys 95	Asn
Thr	Gly	Arg	Pro 100	Ile	Tyr	His	Ala	Ile 105	Val	Trp	Gln	Ser	Arg	Gln	Thr
Gln	Asp	Ile 115	Cys	Thr	Asn	Leu	Lys	Glu 120	Gln	Gly	Tyr	Glu	Glu	Thr	Phe
Arg	Glu 130	Lys	Thr	Gly	Leu	Leu	Leu	Asp 135	Pro	Tyr	Phe	Ala	Gly	Thr	Lys
Val 145	Lys	Trp	Ile	Leu	Asp 150	His	Val	Glu	Gly	Ala 155	Arg	Glu	Lys	Ala	Glu
Asn	Gly	Asp	Leu	Leu 165	Phe	Gly	Thr	Ile	Asp 170	Ser	Trp	Leu	Val	Trp	Lys
Leu	Ser	Gly	Arg 180	Thr	Ala	His	Ile	Thr 185	Asp	Tyr	Thr	Asn	Ala	Ser	Arg
Thr	Leu	Met 195	Phe	Asn	Ile	Tyr	Asp 200	Leu	Lys	Trp	Asp	Asp	Glu	Leu	Leu
Glu	Leu 210	Leu	Asn	Ile	Pro	Lys	Gln 215	Met	Leu	Pro	Glu	Val	Lys	Glu	Ser
Ser 225	Glu	Ile	Tyr	Gly	Lys 230	Thr	Ile	Asp	Tyr	His	Phe	Phe	Gly	Gln	Glu
Val	Pro	Ile	Ala	Gly 245	Ile	Ala	Gly	Asp	Gln 250	Gln	Ala	Ala	Leu	Phe	Gly
Gln	Ala	Cys	Phe 260	Asp	Arg	Gly	Asp	Val 265	Lys	Asn	Thr	Tyr	Gly	Thr	Gly
Gly	Phe	Met 275	Leu	Met	Asn	Thr	Gly 280	Glu	Glu	Ala	Val	Lys	Ser	Glu	Ser
Gly	Leu 290	Leu	Thr	Thr	Ile	Ala 295	Tyr	Gly	Leu	Asp	Gly 300	Lys	Val	Asn	Tyr
Ala 305	Leu	Glu	Gly	Ser	Ile	Phe	Val	Ser	Gly	Ser	Ala 315	Ile	Gln	Trp	Leu
Arg	Asp	Gly	Leu	Arg	Met 325	Ile	Asn	Ser	Ala 330	Pro	Gln	Thr	Glu	Asn	Tyr
Ala	Ser	Arg	Val 340	Glu	Ser	Thr	Glu	Gly 345	Val	Tyr	Met	Val	Pro	Ala	Phe
Val	Gly	Leu 355	Gly	Thr	Pro	Tyr	Trp	Asp	Ser	Glu	Ala	Arg	Gly	Ala	Ile
Phe	Gly 370	Leu	Ser	Arg	Gly	Thr 375	Glu	Lys	Glu	His	Phe 380	Ile	Arg	Ala	Thr
Leu 385	Glu	Ser	Leu	Cys	Tyr 390	Gln	Thr	Arg	Asp	Val	Met	Glu	Ala	Met	Ser
Lys	Asp	Ser	Gly	Ile	Glu 405	Val	Gln	Asn	Leu 410	Arg	Val	Asp	Gly	Gly	Ala
Val	Lys	Asn	Asn 420	Phe	Ile	Met	Gln	Phe 425	Gln	Ala	Asp	Ile	Val	Asn	Ser
Ser	Val	Glu	Arg 435	Pro	Glu	Ile	Gln	Glu	Thr	Thr	Ala	Leu	Gly	Ala	Ala
Tyr	Leu 450	Ala	Gly	Leu	Ala	Val 455	Gly	Phe	Trp	Asp	Asp	Lys	Glu	Asp	Ile
Arg 465	Glu	Arg	Trp	Lys	Leu	Gln	Thr	Glu	Phe	Lys	Pro	Glu	Met	Asp	Ala
Asp	Gln	Arg	His	Lys 485	Leu	Tyr	Ser	Gly	Trp 490	Lys	Lys	Ala	Val	Lys	Ala
Thr	Gln	Val	Phe 500	Lys	Leu	Glu	Asp								

<210> 4348
 <211> 391
 <212> PRT
 <213> S.epidermidis

<400> 4348

Lys Lys His Ile Glu Leu Lys Arg Thr Asn Val Leu Ile Arg Arg Ile
 1 5 10 15
 Ile Met Lys Ile Val His Thr Ala Asp Trp His Leu Gly Lys Ile Leu
 20 25 30
 Asn Gly Lys Gln Leu Leu Glu Asp Gln Lys Tyr Ile Leu Thr Gln Phe
 35 40 45
 Lys Gln His Met Glu Lys Glu Gln Pro Asp Leu Ile Val Ile Ala Gly
 50 55 60
 Asp Leu Tyr Asp Thr Ser Tyr Pro Ser Lys Glu Ala Ile Gly Leu Leu
 65 70 75 80
 Glu Glu Thr Ile Glu Tyr Leu Asn Ile Glu Leu Lys Ile Pro Ile Ile
 85 90 95
 Met Ile Ser Gly Asn His Asp Gly Arg Glu Arg Leu Asn Tyr Gly Ser
 100 105 110
 Lys Trp Phe Glu Asn Asn Gln Leu Tyr Ile Arg Thr Gln Leu Glu Asn
 115 120 125
 Ile Asp Asp Pro Ile Glu Leu Ser Gly Val Gln Phe Phe Thr Leu Pro
 130 135 140
 Phe Ala Thr Val Ser Glu Val Gln Asn Tyr Phe Lys Asp Lys Gln Ile
 145 150 155 160
 Glu Thr Tyr Gln Gln Ala Leu Asn Glu Cys Leu Glu Gln Met Ser Ser
 165 170 175
 Ser Ile Asp Asn Asn Lys Val Asn Ile Leu Ile Gly His Leu Thr Ile
 180 185 190
 Glu Gly Gly Lys Thr Ser Asp Ser Glu Arg Pro Leu Thr Ile Gly Thr
 195 200 205
 Val Glu Ser Val Asp Met His Ser Phe Arg Leu Phe Asp Tyr Val Met
 210 215 220
 Leu Gly His Leu His His Pro Phe Ser Ile Asn Asn Ser Phe Ile Lys
 225 230 235 240
 Tyr Ser Gly Ser Ile Leu Gln Tyr Ser Phe Ser Glu Val Asn Gln Ser
 245 250 255
 Lys Gly Tyr Arg Val Leu Asp Ile Glu Asn Asn Gln Leu Leu Asn Glu
 260 265 270
 Thr Phe Val Pro Leu Lys Pro Leu Arg Glu Leu Glu Val Ile Glu Gly
 275 280 285
 Asp Tyr Glu Asp Ile Ile Gln Glu Arg Ile Lys Val Lys Asn Lys Asn
 290 295 300
 Asn Tyr Phe His Phe Lys Leu Thr Asn Val Ser His Ile Thr Asp Pro
 305 310 315 320
 Met Met Lys Leu Lys Gln Ile Tyr Pro Asn Ile Leu Ala Leu Ser Asn
 325 330 335
 Val Val Phe Asp His Ser Glu Asn Phe Ser His Val Glu Ile Lys Lys
 340 345 350
 Gln Asp Asp Gln Thr Ile Ile Glu Asn Phe Tyr Lys Asn Met Thr Asp
 355 360 365
 Gln His Leu Ser Gln Val Gln Ser Asp Lys Ile Lys His Leu Leu Ser
 370 375 380
 Phe Ile Leu Asp Arg Glu Gly

115

120

<210> 4351
 <211> 44
 <212> PRT
 <213> S.epidermidis

<400> 4351
 Ala Leu Ile Ile Lys Val Val Ser Leu Thr Gly Val Lys Ile Thr Met
 1 5 10 15
 Gln Ser Lys Thr Val Ile Asn Lys Arg Asn Leu Leu Ile Val Phe Thr
 20 25 30
 Tyr Tyr Phe Leu Leu Ile Ser Ile Thr Ile Lys Asp
 35 40

<210> 4352
 <211> 104
 <212> PRT
 <213> S.epidermidis

<400> 4352
 His Arg Ile Ile Gly Trp Ser Asp Lys Leu Met Arg Lys Lys Lys Ile
 1 5 10 15
 Pro Met Arg Lys Cys Ile Ile Ser Asn Glu Met Arg Pro Lys Lys Asp
 20 25 30
 Met Ile Arg Val Val Ile Asn Lys Glu Gly Glu Ile Phe Ala Asp Ala
 35 40 45
 Thr Gly Lys Lys Gln Gly Arg Gly Ala Tyr Val Ser Lys Asp Val Ala
 50 55 60
 Leu Val Glu Lys Ala Gln Gln Arg Glu Val Leu Glu Lys Tyr Phe Asn
 65 70 75 80
 Ala Thr Lys Asp Thr Leu Asp Pro Val Tyr Lys Glu Ile Ile Arg Leu
 85 90 95
 Ile Tyr Arg Glu Glu Ile Pro Lys
 100

<210> 4353
 <211> 43
 <212> PRT
 <213> S.epidermidis

<400> 4353
 Leu Arg Thr Ile Ala Ile Ile Lys Ile Ile Ile Ile Ile Asp Lys Ile
 1 5 10 15
 Ile Val Lys Asp Ile Thr Thr His Pro Asn Leu Leu Ile Leu Asn Ser
 20 25 30
 Ile Cys Lys Ile Asn Tyr Lys Leu Leu Lys Phe
 35 40

<210> 4354
 <211> 870
 <212> PRT
 <213> S.epidermidis

<400> 4354
 Gly Phe Ala Met Ile Lys Asn Ile Trp Asn Lys Pro Ile Lys Arg Phe

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Thr	Leu	Ile	Val	Leu	Val	Ser
		20				25
Pro	Phe	Leu	Tyr	Gln	Phe	Ile
		35				40
Gly	Asp	Gly	Phe	Arg	Gln	Met
		50				55
His	Phe	Thr	Ser	Leu	Lys	Gly
65					70	
Gly	Asp	Tyr	Val	Lys	Ser	Leu
				85		90
Met	Trp	Ile	Asn	Phe	Ser	Met
		100				105
Val	Asn	Pro	His	Asp	Ile	Ser
		115				120
Ala	Tyr	Val	Arg	Thr	Val	Ile
		130				135
Ser	Tyr	Leu	Arg	Leu	Lys	Pro
145					150	
Tyr	Gly	Met	Ser	Thr	Val	Val
				165		170
Tyr	Gly	Asn	Leu	Leu	Ile	Met
		180				185
Arg	Phe	Phe	Lys	Glu	Arg	Lys
		195				200
Tyr	Thr	Leu	Phe	Ser	Asn	Phe
		210			215	
Ile	Gly	Phe	Tyr	Phe	Ile	Tyr
225					230	
Ile	Val	Asn	Arg	Trp	Gln	Lys
		245				250
Leu	Ser	Val	Leu	Val	Ser	Ile
		260				265
Phe	Leu	Asp	Asn	Asp	Arg	Ala
		275				280
Phe	Thr	Asn	Leu	Phe	Glu	Thr
		290			295	
Tyr	Ile	Thr	Ile	Ser	Phe	Ile
305					310	
Leu	Tyr	Gln	His	Tyr	Tyr	Tyr
			325			330
Leu	Leu	Ile	Gly	Ser	Phe	Ser
		340				345
Phe	Ser	Leu	Pro	Gln	Arg	Arg
		355				360
Ser	Val	Leu	Ile	Ala	Leu	Phe
		370			375	
Lys	Glu	Tyr	Thr	Phe	Val	Ala
385					390	
Phe	Ile	Ala	Leu	Ser	Glu	Arg
			405			410
Ile	Leu	Ile	Ile	Val	Leu	Phe
		420				425
Thr	Arg	Thr	Ser	Met	Met	Val
		435				440
Gln	Val	Leu	Met	Thr	Asn	Asp

450		455		460	
Gln Thr Thr Ile Lys Thr	Ile Asn Asp Ser Ser Tyr Arg Ser Pro Val				
465	470	475		480	
Leu Asn Lys Lys Ile Lys Tyr Met His Gln Ser Ser Thr Asp Pro Leu					
	485	490		495	
Lys Arg Leu Asp Tyr Phe Ser Tyr Tyr Ala Leu Asn Ser Pro Leu Ile					
	500	505		510	
Tyr His Tyr Asn Gly Thr Ser Leu Tyr Ser Ser Ile Phe Asp Gly Asp					
	515	520		525	
Ile Leu Lys Tyr Tyr Asp Gln Thr Leu Gln Ile Asn Met Pro Val Asp					
	530	535		540	
Lys Asn Ser Thr Tyr Arg Tyr Leu Asn Asn Arg Ala Asn Leu Met Ser					
545	550	555		560	
Leu Trp Asp Val Gln Asp Arg Leu Arg His Pro Asp Asp Leu Asn Met					
	565	570		575	
Pro Tyr Gly Phe Lys Lys Lys Glu Leu Ile Thr Asp Lys Lys Asp Gln					
	580	585		590	
Trp Ile His Ser Val Asn Thr Ile Asn Tyr Pro Ser Ala His Ile Thr					
	595	600		605	
Asn Lys Ile Tyr Asp Ala Arg Lys Leu Lys Ser Pro Leu Asp Arg Glu					
	610	615		620	
Gln Ala Met Leu Lys Gly Val Val Leu Asn His Lys Ser Gln Ala Asn					
625	630	635		640	
Thr Asp Phe Lys Pro Asn Pro Asn Leu Leu Ser Asn Ala Lys Gln Asn					
	645	650		655	
Leu Asn His Ala Asn Trp Ile Asp Ser Lys His Leu Lys Val Lys Gln					
	660	665		670	
His Asn Gly Gly Val Thr Leu Asn Leu Leu Arg Asn Ile Val Lys Asn					
	675	680		685	
Tyr Lys Asp Met Tyr Ile Glu Met Asp Val Glu Leu Leu Ser Leu Asp					
	690	695		700	
Lys Glu His Lys Val Gly Val Asn Glu Tyr Ser Gln Glu Arg Asn Arg					
705	710	715		720	
Leu Ser Tyr Lys Tyr Arg Arg Phe Val Ser Pro Val Thr Met Arg Ala					
	725	730		735	
Lys Ala Ser Asn Gln Leu Asn Ile Lys Met Ser Lys Gly Val Tyr Arg					
	740	745		750	
Phe Lys Val Lys Gly Ile Tyr Gly Glu Asn Tyr Gln Thr Leu Lys Lys					
	755	760		765	
Ala Ser Gln Gln Leu Gln Pro Val Lys Val Lys Lys Glu Arg Asn Gly					
	770	775		780	
Phe Thr Ile Ile Lys Lys Lys Lys Glu His Gly Tyr Leu Val Leu Pro					
785	790	795		800	
Met Val Tyr Ala Lys Gly Met His Ala Met Ala Asn Gly Lys Pro Leu					
	805	810		815	
Lys Val Gln Gln Gly Asn Gly Ile Met Thr Thr Ile Pro Val Lys Glu					
	820	825		830	
Gly Gln Thr Lys Ile Lys Leu Ser Tyr Thr Pro Pro Tyr Phe Tyr Leu					
	835	840		845	
Leu Ile Thr Val Ser Cys Ile Gly Ile Ile Leu Ser Ile Leu Phe Thr					
	850	855		860	
His Tyr Val Lys Arg Lys					
865	870				

<210> 4355

<211> 40

<212> PRT

<213> S.epidermidis

<400> 4355

Glu	Ser	Tyr	Ile	Leu	Ile	Val	Arg	Leu	Ser	Thr	Asp	Met	Cys	Gln	Asp
1				5				10						15	
Met	Lys	Leu	His	Tyr	Thr	His	Phe	Lys	Leu	Leu	Phe	Leu	Lys	Asn	Lys
			20					25					30		
Ser	Lys	Thr	Thr	Lys	Lys	Asp	Gly								
			35				40								

<210> 4356

<211> 51

<212> PRT

<213> S.epidermidis

<400> 4356

Leu	Val	Val	Leu	Ser	Met	Asn	Asn	Arg	Lys	Leu	Glu	Lys	Gln	Phe	Pro
1				5					10					15	
Met	Ala	Leu	Ser	Thr	Ser	Leu	Gln	Val	Thr	Arg	Asn	Phe	Gly	Asn	Leu
			20					25					30		
Tyr	Thr	Val	Asn	Lys	Asn	Val	Phe	Lys	Phe	Val	Asn	Gln	Gly	Ile	Ile
			35				40					45			
Ile	Phe	Ser													
			50												

<210> 4357

<211> 48

<212> PRT

<213> S.epidermidis

<400> 4357

Val	Leu	Asn	Ile	Gly	Phe	Ser	Ser	Thr	Pro	Thr	Ile	Asp	Val	Lys	Asn
1				5					10					15	
Lys	Ala	Leu	Lys	Cys	Leu	Asp	Leu	Cys	Phe	Asn	Phe	Val	Asn	Lys	Ile
			20					25					30		
Glu	Lys	Ile	Asp	Ser	Phe	Leu	Ser	Ile	Lys	Asn	His	His	Asn	Glu	Leu
			35				40					45			

<210> 4358

<211> 429

<212> PRT

<213> S.epidermidis

<400> 4358

Asn	Met	Ser	Ile	Leu	Ile	Thr	Ile	Ile	Ser	Phe	Ile	Ile	Val	Phe	Gly
1				5					10					15	
Val	Leu	Val	Thr	Val	His	Glu	Tyr	Gly	His	Met	Phe	Phe	Ala	Lys	Arg
			20					25					30		
Ala	Gly	Ile	Met	Cys	Pro	Glu	Phe	Ala	Ile	Gly	Met	Gly	Pro	Lys	Ile
			35				40					45			
Phe	Ser	Phe	Arg	Lys	Asp	Glu	Thr	Leu	Tyr	Thr	Ile	Arg	Leu	Leu	Pro
			50			55					60				
Val	Gly	Gly	Tyr	Val	Arg	Met	Ala	Gly	Asp	Gly	Leu	Glu	Glu	Pro	Pro
65					70					75				80	
Val	Gln	Pro	Gly	Met	Asn	Val	Lys	Ile	Lys	Leu	Asn	Asn	Gln	Asp	Glu

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<210> 4359
<211> 54
<212> PRT
<213> S.epidermidis
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Leu	Ile	Leu	Ile	Val	Leu	Asn	Lys	Phe	Thr	Asn	Ser	His	Arg	Arg	Phe
1				5					10					15	
Phe	Met	Asn	Arg	Lys	Met	Ile	Phe	Ile	Leu	Asn	Asp	Ala	Arg	Val	Lys
			20					25					30		
Leu	Lys	Val	Val	Gly	Leu	Ala	Ile	Ile	Lys	Tyr	Asn	Tyr	Glu	Val	Ile
		35					40					45			

Asp Lys Ser Leu Arg Lys
50

<210> 4360

<211> 57

<212> PRT

<213> S.epidermidis

<400> 4360

His	Ile	Ile	Ile	Phe	Asn	Ile	Ile	Tyr	Arg	Phe	Asn	Tyr	Leu	Asp	Asp
1				5				10					15		
Phe	Leu	Ile	Lys	His	Lys	Phe	Ile	Arg	Gly	Val	Glu	His	Glu	His	Phe
		20						25					30		
Asn	Tyr	Asp	Tyr	Phe	Ile	Tyr	His	Arg	Ile	Trp	Cys	Thr	Arg	Asn	Cys
	35						40					45			
Ser	Arg	Ile	Trp	Thr	His	Val	Phe	Cys							
	50					55									

<210> 4361

<211> 41

<212> PRT

<213> S.epidermidis

<400> 4361

Thr	Ile	Val	Ile	Glu	Leu	Ile	Ile	Asp	Lys	Leu	Lys	Ile	Lys	Leu	Leu
1				5				10					15		
Ser	Val	Ser	Lys	Phe	Val	Lys	Phe	Glu	Gly	Glu	Asn	Leu	Ile	Leu	Leu
		20						25				30			
Ile	Leu	Ser	Val	Ile	Phe	Met	Thr	Thr							
	35					40									

<210> 4362

<211> 341

<212> PRT

<213> S.epidermidis

<400> 4362

Val	Asn	Thr	Ile	Lys	Arg	Phe	Leu	Leu	Leu	Ile	Thr	Val	Leu	Leu	Cys
1				5				10					15		
Ile	Val	Ile	Phe	Thr	Pro	Val	Lys	Glu	Thr	Thr	Phe	Met	Ile	Lys	Ala
		20						25				30			
Gln	Asn	Asp	Ile	Arg	His	Gln	Ile	Asn	Arg	Trp	Ile	Asp	Ser	Asp	Ser
	35					40					45				
Asn	Asp	Asp	Asn	Thr	Gln	Leu	Ala	Ile	Pro	Lys	Lys	Gln	Glu	Phe	Ala
	50				55						60				
Ile	Asn	Asn	Ile	Gln	Met	Asn	Met	Thr	Lys	Lys	Asp	Val	Glu	Ala	Gln
65				70					75				80		
Leu	Gly	Gln	His	Lys	Arg	Met	Thr	Ser	Ser	Val	Tyr	Gly	Thr	Asn	Trp
		85						90				95			
Tyr	Thr	Tyr	Tyr	Ser	Asn	Asp	Tyr	Asn	Gln	Phe	Leu	Met	Val	Ser	Tyr
		100					105					110			
Ile	Asn	Asn	His	Val	Asn	Ala	Leu	Tyr	Thr	Asn	Gln	Asn	Leu	Ile	Ser
	115					120					125				
Ser	Lys	Ser	Gln	Ile	Lys	Tyr	Asp	Thr	Pro	Lys	Asp	Val	Val	Arg	Glu
	130					135					140				
Arg	Tyr	Gly	Pro	Pro	Ile	Gln	Val	Ile	Lys	Lys	Gly	Lys	Val	Gly	Phe

145		150		155		160
Asp	Val	Lys	Ser	Asn	Glu	Tyr
				165		170
Thr	Thr	Val	Phe	Tyr	Asp	Lys
			180		185	190
Leu	Gln	Val	Ser	Glu	Lys	Met
		195			200	205
Lys	Pro	Ser	Lys	Leu	Leu	Ala
	210				215	220
Ile	Val	Asn	Ala	Glu	Arg	Lys
225				230		235
Ser	Lys	Asp	Val	Ser	His	Thr
			245		250	255
Lys	His	Asn	Tyr	Phe	Asp	His
		260			265	270
Asp	Arg	Leu	Lys	Lys	Asp	Gly
	275				280	285
Leu	Ala	Tyr	Gly	Gln	Leu	Asn
	290			295		300
Asn	Ser	Leu	Gly	His	Arg	Lys
305				310		315
Leu	Gly	Val	Gly	Val	Tyr	Phe
			325		330	335
Glu	Asn	Tyr	Thr	Ser		
			340			

<210> 4363

<211> 403

<212> PRT

<213> S.epidermidis

<400> 4363

Leu	Met	Lys	Ile	Gln	Thr	Glu	Val	Asp	Glu	Leu	Gly	Phe	Phe	Gly	Glu
1			5						10					15	
Tyr	Gly	Gly	Gln	Tyr	Val	Pro	Glu	Thr	Leu	Met	Pro	Ala	Ile	Ile	Glu
			20					25					30		
Leu	Lys	Lys	Ala	Tyr	Glu	Asp	Ala	Lys	Ser	Asp	Thr	His	Phe	Lys	Lys
		35					40					45			
Glu	Phe	Asn	Tyr	Tyr	Leu	Ser	Glu	Tyr	Val	Gly	Arg	Glu	Thr	Pro	Leu
	50				55					60					
Thr	Phe	Ala	Glu	Ser	Tyr	Thr	Lys	Leu	Leu	Gly	Gly	Ala	Lys	Ile	Tyr
65				70					75					80	
Leu	Lys	Arg	Glu	Asp	Leu	Asn	His	Thr	Gly	Ala	His	Lys	Ile	Asn	Asn
			85					90						95	
Ala	Ile	Gly	Gln	Ala	Leu	Leu	Ala	Lys	Arg	Met	Gly	Lys	Thr	Lys	Leu
		100					105						110		
Val	Ala	Glu	Thr	Gly	Ala	Gly	Gln	His	Gly	Val	Ala	Ser	Ala	Thr	Ile
	115					120						125			
Ala	Ala	Leu	Phe	Asp	Met	Asp	Leu	Ile	Val	Phe	Met	Gly	Ser	Glu	Asp
	130				135					140					
Ile	Lys	Arg	Gln	Gln	Leu	Asn	Val	Phe	Arg	Met	Glu	Leu	Leu	Gly	Ala
145				150					155					160	
Lys	Val	Val	Ser	Val	Ser	Asp	Gly	Gln	Gly	Thr	Leu	Ser	Asp	Ala	Val
			165					170						175	
Asn	Lys	Ala	Leu	Gln	Tyr	Trp	Val	Asn	His	Val	Glu	Asp	Thr	His	Tyr
		180					185						190		

Leu Leu Gly Ser Ala Leu Gly Pro Asp Pro Phe Pro Thr Met Val Arg
 195 200 205
 Asp Phe Gln Ser Val Ile Gly Asn Glu Ile Lys Ser Gln Ile Leu Ser
 210 215 220
 Lys Glu Gly Arg Phe Pro Asp Ala Leu Val Ala Cys Val Gly Gly Arg
 225 230 235 240
 Ser Asn Ser Ile Gly Thr Phe Tyr Pro Phe Ile Gln Asp Asp Val Lys
 245 250 255
 Leu Tyr Gly Val Glu Ala Ala Gly Lys Gly Ser His Thr His Asn His
 260 265 270
 Ala Leu Ala Ile Gly Lys Gly Lys Pro Gly Val Leu His Gly Ser Lys
 275 280 285
 Met Tyr Leu Ile Gln Asn Asp Asp Gly Gln Ile Glu Leu Ala His Ser
 290 295 300
 Ile Ser Ala Gly Leu Asp Tyr Pro Gly Ile Gly Pro Glu His Ser Tyr
 305 310 315 320
 Tyr Asn Asp Ile Gly Arg Val Ser Tyr Val Ser Ala Thr Asp Asn Glu
 325 330 335
 Ala Met Glu Ala Leu Ile Thr Phe Ser Lys Val Glu Gly Ile Ile Pro
 340 345 350
 Ala Ile Glu Ser Ala His Ala Leu Ser Tyr Val Glu Lys Leu Ala Pro
 355 360 365
 Asn Met Asp Glu Lys Glu Ile Ile Val Val Thr Ile Ser Gly Arg Gly
 370 375 380
 Asp Lys Asp Met Glu Thr Ile Lys Gln Tyr Lys Glu Asn Gly Gly Glu
 385 390 395 400
 Gln Asn Glu

<210> 4364

<211> 383

<212> PRT

<213> S.epidermidis

<400> 4364

Ile Leu Glu Met Thr His Ile Gln Tyr Cys Tyr Ser Glu Asn Ser Glu
 1 5 10 15
 Thr Arg Arg Arg Ser Met Arg Asn Ile Leu Phe Val Gly Leu Gly Leu
 20 25 30
 Ile Gly Gly Ser Leu Ala Ser Asn Leu Lys Tyr His Tyr Ser Asn Phe
 35 40 45
 Asn Ile Leu Ala Tyr Asp Ser Asp Tyr Thr Gln Leu Asp Glu Ala Leu
 50 55 60
 Ser Ile Gly Ile Ile Asp Gln Lys Val Asn Asp Tyr Ala Thr Ala Val
 65 70 75 80
 Glu Ile Ala Asp Ile Ile Phe Ala Thr Pro Val Glu Gln Thr Ile
 85 90 95
 Lys Tyr Leu Ser Glu Leu Thr Asn Tyr Asn Thr Lys Thr His Leu Ile
 100 105 110
 Val Thr Asp Thr Gly Ser Thr Lys Leu Thr Ile Gln Ser Phe Glu Lys
 115 120 125
 Glu Leu Leu Lys His Asp Ile His Leu Ile Ser Gly His Pro Met Ala
 130 135 140
 Gly Ser His Lys Ser Gly Val Leu Asn Ala Lys Lys His Leu Phe Glu
 145 150 155 160
 Asn Ala Tyr Tyr Ile Leu Val Phe Asn Glu Ile Glu Asn Asn Glu Ala

				165					170					175			
Ala	Thr	Tyr	Leu	Lys	Lys	Leu	Leu	Lys	Pro	Thr	Leu	Ala	Lys	Phe	Ile		
			180					185					190				
Val	Thr	His	Ala	Asn	Glu	His	Asp	Phe	Val	Thr	Gly	Ile	Val	Ser	His		
		195					200					205					
Val	Pro	His	Ile	Ile	Ala	Ser	Ile	Leu	Val	His	Leu	Ser	Ala	Asn	His		
	210					215					220						
Val	Lys	Asp	His	Ser	Leu	Ile	Glu	Lys	Leu	Ala	Ala	Gly	Gly	Phe	Arg		
225				230					235						240		
Asp	Ile	Thr	Arg	Ile	Ala	Ser	Ser	Asn	Ala	Gln	Met	Trp	Lys	Asp	Ile		
			245					250						255			
Thr	Leu	Asn	Asn	Gln	Asn	His	Ile	Leu	Ser	Leu	Leu	Asn	Glu	Ile	Lys		
		260						265					270				
Glu	Gln	Ile	Thr	Gly	Ile	Glu	Asn	Leu	Ile	Arg	Glu	Gln	Asn	Ser	Asn		
	275						280					285					
Ser	Ile	Tyr	Asp	Phe	Phe	Val	Lys	Ala	Lys	Asp	Tyr	Arg	Asp	Gln	Leu		
	290					295					300						
Pro	Val	Lys	Gln	His	Gly	Ala	Ile	Ser	Thr	Ala	Tyr	Asp	Leu	Tyr	Val		
305				310					315						320		
Asp	Ile	Pro	Asp	Lys	Pro	Gly	Met	Ile	Ser	Gln	Ile	Thr	Asn	Ile	Ile		
			325					330						335			
Ser	Ser	His	Asn	Ile	Ser	Ile	Ile	Asn	Leu	Lys	Ile	Leu	Glu	Val	Arg		
		340						345					350				
Glu	Asp	Ile	Tyr	Gly	Ala	Leu	Gln	Ile	Ser	Phe	Lys	Ser	Pro	Glu	Asp		
	355						360					365					
Arg	Glu	Asn	Ala	Ile	Lys	Ala	Leu	Ala	Asn	Phe	Asp	Thr	Tyr	Tyr			
	370					375					380						

<210> 4365

<211> 193

<212> PRT

<213> S.epidermidis

<400> 4365

Met	Thr	Glu	Met	Thr	Lys	Pro	Phe	Leu	Ile	Val	Ile	Val	Gly	Pro	Thr		
1				5					10					15			
Ala	Ser	Gly	Lys	Thr	Glu	Leu	Ser	Ile	Glu	Val	Ala	Lys	Lys	Phe	Asn		
		20						25					30				
Gly	Glu	Ile	Ile	Ser	Gly	Asp	Ser	Met	Gln	Val	Tyr	Gln	Gly	Met	Asp		
	35					40						45					
Ile	Gly	Thr	Ala	Lys	Val	Thr	Thr	Glu	Glu	Met	Glu	Gly	Ile	Pro	His		
	50					55					60						
Tyr	Met	Ile	Asp	Ile	Leu	Pro	Pro	Asp	Ala	Ser	Phe	Ser	Ala	Tyr	Glu		
65				70					75					80			
Phe	Lys	Lys	Arg	Ala	Glu	Lys	Tyr	Ile	Lys	Asp	Ile	Thr	Arg	Arg	Gly		
			85					90						95			
Lys	Val	Pro	Ile	Ala	Gly	Gly	Thr	Gly	Leu	Tyr	Ile	Gln	Ser	Leu			
	100						105					110					
Leu	Tyr	Asn	Tyr	Ala	Phe	Glu	Asp	Glu	Ser	Ile	Ser	Glu	Asp	Lys	Met		
	115						120					125					
Lys	Gln	Val	Lys	Leu	Lys	Leu	Lys	Glu	Leu	Glu	His	Leu	Asn	Asn	Asn		
	130					135					140						
Lys	Leu	His	Glu	Tyr	Leu	Ala	Ser	Phe	Asp	Lys	Glu	Ser	Ala	Lys	Asp		
145					150				155					160			
Ile	His	Pro	Asn	Asn	Arg	Lys	Arg	Val	Leu	Arg	Ala	Ile	Glu	Tyr	Tyr		
			165					170						175			

Leu Lys Thr Lys Lys Leu Leu Ser Phe Ser Gln Glu Ser Ala Pro Ile
 180 185 190
 Tyr

<210> 4366
 <211> 40
 <212> PRT
 <213> S.epidermidis

<400> 4366
 Met Asn Arg Met Leu Asn Ile Lys Gly Glu Val Lys Arg Pro Ile Phe
 1 5 10 15
 Leu Lys Ile Lys Arg Asn Arg Tyr Lys Asp Ile Asn Gly Ser Tyr Glu
 20 25 30
 Asp Glu Val Tyr Glu Phe Asp Ser
 35 40

<210> 4367
 <211> 67
 <212> PRT
 <213> S.epidermidis

<400> 4367
 Gln Arg Arg Met Leu Ile Met Pro Ile Ile Asn Val Lys Leu Leu Glu
 1 5 10 15
 Gly Arg Ser Asp Glu Gln Leu Lys Asp Leu Val Thr Glu Val Thr His
 20 25 30
 Ala Val Glu Lys Thr Thr Gly Ala Asn Lys Glu Ala Ile His Val Val
 35 40 45
 Ile Glu Glu Met Arg Lys Asp His Tyr Ala Val Gly Gly Val Arg Lys
 50 55 60
 Ser Asp Gln
 65

<210> 4368
 <211> 204
 <212> PRT
 <213> S.epidermidis

<400> 4368
 Val Phe Met Met Ile Ile Val Met Leu Ile Leu Ser Tyr Leu Ile Gly
 1 5 10 15
 Ala Phe Pro Ser Gly Leu Ile Ile Gly Lys Leu Phe Phe Lys Lys Asp
 20 25 30
 Ile Arg Gln Tyr Gly Ser Gly Asn Thr Gly Ala Thr Asn Ser Phe Arg
 35 40 45
 Val Leu Gly Arg Pro Ala Gly Phe Ile Val Thr Phe Leu Asp Ile Phe
 50 55 60
 Lys Gly Phe Ile Thr Val Phe Phe Pro Leu Trp Phe Pro Val His Ala
 65 70 75 80
 Asp Gly Val Ile Ser Thr Phe Phe Thr Asn Gly Leu Ile Val Gly Leu
 85 90 95
 Phe Ala Ile Leu Gly His Val Tyr Pro Ile Tyr Leu Lys Phe Asn Gly
 100 105 110
 Gly Lys Ala Val Ala Thr Ser Ala Gly Val Val Leu Gly Val Asn Pro

<400> 4371

Val Lys Thr Ile Gly Glu Val Leu Lys Ser Arg Arg Glu Arg Leu Gly
 1 5 10 15
 Met Thr Leu Ser Glu Leu Glu Gln Arg Thr Gln Leu Lys Arg Gln Thr
 20 25 30
 Leu Ile His Ile Glu Asn Asn Asp Phe Asn Glu Leu Ala Lys Ser Asp
 35 40 45
 Tyr Thr Glu Gly Phe Ile Arg Lys Tyr Ala Lys Val Val Asn Ile Glu
 50 55 60
 Pro Asn Gln Leu Ile Glu Ala His Gln Asp Glu Ile Pro Glu Thr Gln
 65 70 75 80
 Tyr Gln Ile Asp Asp Val Ile Gln Thr Phe Ser Asn Gly Tyr Glu Pro
 85 90 95
 Pro Tyr Arg Arg Gln Ser Lys Glu Ala Phe Gln Leu Leu Met Trp Met
 100 105 110
 Gly Phe Ile Ile Leu Ile Ser Leu Ile Val Trp Ile Leu Ala Val Leu
 115 120 125
 Ile Ile
 130

<210> 4372

<211> 266

<212> PRT

<213> S.epidermidis

<400> 4372

Thr Glu Thr Ile Arg Leu Gly Gly Lys Thr Met Phe Lys Lys Leu Lys
 1 5 10 15
 Asn Lys Asn Lys Thr Glu Thr Asn His Asn Asn Asp Leu Asp Ile His
 20 25 30
 Asn Ile Pro Glu His Val Ala Ile Met Asp Gly Asn Gly Arg Trp
 35 40 45
 Ala Lys Lys Arg Lys Met Pro Arg Ile Lys Gly His Tyr Glu Gly Met
 50 55 60
 Gln Thr Ile Lys Lys Ile Thr Arg Glu Ala Ser Asp Ile Gly Ile Lys
 65 70 75 80
 Tyr Leu Thr Leu Tyr Ala Phe Ser Thr Glu Asn Trp Ser Arg Pro Glu
 85 90 95
 Ser Glu Val Asn Tyr Ile Met Asn Leu Pro Val Asn Phe Leu Lys Thr
 100 105 110
 Phe Leu Pro Glu Leu Ile Glu Lys Asn Val Lys Ile Glu Thr Ile Gly
 115 120 125
 Phe Tyr Glu Gly Leu Pro Gln Ser Thr Ile Asp Ala Ile Asp Phe Ala
 130 135 140
 Lys Ala Lys Thr Gln His Asn Thr Gly Leu Thr Leu Val Phe Ala Ile
 145 150 155 160
 Asn Tyr Gly Gly Arg Ala Glu Ile Ile Gln Ser Met Lys Ala Ile Tyr
 165 170 175
 Asn Glu Leu Gln Leu Asn Gly Gln Gly Ser Glu Val Ile Asp Glu Ala
 180 185 190
 Leu Ile Lys Arg His Leu Met Thr His Ser Tyr Pro Asp Pro Asp Leu
 195 200 205
 Leu Ile Arg Thr Ser Gly Glu Gln Arg Ile Ser Asn Phe Leu Ile Trp
 210 215 220
 Gln Ala Ser Tyr Ser Glu Phe Ile Phe Asn Glu Lys Leu Trp Pro Asp

225 230 235 240
 Phe Asp Glu Lys Glu Leu Arg Glu Cys Leu Lys Ile Tyr Gln Ser Arg
 245 250 255
 Gln Arg Arg Phe Gly Gly Leu Ser Glu Glu
 260 265

<210> 4373
 <211> 288
 <212> PRT
 <213> S.epidermidis

<400> 4373
 Leu Met Ala Ile Gln Trp Tyr Pro Gly His Met Ala Lys Ala Lys Arg
 1 5 10 15
 Gln Val Ser Glu Gln Leu Lys Lys Val Asp Val Val Phe Glu Leu Val
 20 25 30
 Asp Ala Arg Ile Pro Tyr Ser Ser Arg Asn Pro Met Ile Asp Asp Val
 35 40 45
 Ile Lys Gln Lys Pro Arg Val Val Ile Leu Asn Lys Lys Asp Met Thr
 50 55 60
 Asn Leu Lys Glu Leu Glu Lys Trp Glu Ile Tyr Phe Lys Asn Glu Gly
 65 70 75 80
 Phe Tyr Pro Val Ala Val Asp Ala Lys His Gly Lys Asn Leu Lys Asn
 85 90 95
 Val Glu Val Glu Ala Ile Lys Ala Thr Gln Glu Lys Phe Asp Arg Glu
 100 105 110
 Lys Ala Lys Gly Leu Lys Pro Arg Ala Ile Arg Ala Met Ile Val Gly
 115 120 125
 Ile Pro Asn Val Gly Lys Ser Thr Leu Ile Asn Lys Leu Ala Lys Arg
 130 135 140
 Ser Ile Ala Glu Thr Gly Asn Lys Pro Gly Val Thr Lys Gln Gln Gln
 145 150 155 160
 Trp Ile Lys Val Gly Lys Ser Leu Gln Leu Leu Asp Thr Pro Gly Ile
 165 170 175
 Leu Trp Pro Lys Phe Glu Asp Glu Glu Val Gly Lys Lys Leu Ser Leu
 180 185 190
 Thr Gly Ala Ile Lys Asp Ser Ile Val His Leu Asp Glu Val Ala Ile
 195 200 205
 Tyr Gly Leu Asn Phe Met Ile Lys His Asp Val Ser Ala Leu Lys Arg
 210 215 220
 His Tyr Asn Ile Asp Thr His Glu Asp Ala Glu Ile Leu Asp Trp Phe
 225 230 235 240
 Asp Ala Ile Gly Arg Arg Lys Gly Leu Leu Gln Lys Gly Asn Glu Val
 245 250 255
 Asp Tyr Glu Ser Val Ile Glu Leu Ile Ile Asn Asp Met Arg Asn Ala
 260 265 270
 Lys Ile Gly Thr Tyr Cys Phe Asp Ile Leu Lys Glu Met Lys Ser Glu
 275 280 285

<210> 4374
 <211> 452
 <212> PRT
 <213> S.epidermidis

<400> 4374
 Asn Trp Arg Ile Tyr Thr Met Pro Lys Arg Ser Phe Thr Lys Asp Asp

1		5		10		15
Ile	Arg	Lys	Phe	Ala	Glu	Glu
			20			25
Phe	Thr	Asp	Ile	Leu	Gly	Thr
		35				40
Gln	Leu	Glu	Lys	Val	Leu	Asp
		50				55
Ile	Glu	Gly	Phe	Val	Arg	Ile
65					70	
Asp	Leu	Asp	Thr	Trp	Val	Ile
			85			90
Val	Ala	Arg	Leu	Ile	Cys	Asp
			100			105
Glu	Gly	Asp	Pro	Arg	Ala	Asn
		115				120
Asp	Met	Gly	Phe	Thr	Asp	Phe
		130				135
Leu	Phe	Lys	Leu	Asp	Glu	Lys
145					150	
Asp	Gly	Gly	Tyr	Phe	Asp	Leu
					165	
Arg	Arg	Asp	Ile	Val	Leu	Glu
			180			185
Ala	Ser	His	His	Glu	Val	Ala
		195				200
Tyr	Ala	Asp	Ala	Val	Thr	Ala
		210				215
Val	Val	Lys	Thr	Ile	Ala	Arg
225					230	
Pro	Lys	Pro	Leu	Phe	Gly	Val
			245			250
Ser	Leu	Phe	Lys	Gly	Lys	Glu
		260				265
Leu	Gln	Leu	Thr	Asp	Thr	Ala
		275				280
Asn	Ala	Arg	Gly	Phe	Thr	Ala
		290				295
Lys	Arg	Leu	Val	Pro	Gly	Tyr
305					310	
Gly	Lys	Asn	Arg	Ser	Pro	Leu
			325			330
Ser	Thr	Arg	Ile	Glu	Val	Arg
		340				345
Met	Ala	Leu	Ala	Ala	Ile	Leu
		355				360
Lys	Leu	Glu	Val	Pro	Glu	Pro
		370				375
Arg	Glu	Glu	Arg	Glu	Ala	Val
385					390	
Tyr	Thr	Ala	Leu	Lys	Ala	Met
			405			410
Leu	Gly	Asn	His	Ile	Tyr	Asn
		420				425
Trp	Asp	Tyr	Tyr	Arg	Thr	Gln
		435				440
Ile	Lys	Gln	Tyr			

450

<210> 4375

<211> 50

<212> PRT

<213> S.epidermidis

<400> 4375

Ser	Ile	Tyr	Phe	Asn	Val	Pro	Cys	Ile	Thr	Ser	Ala	Arg	Leu	Cys	Gly
1				5					10					15	
Gly	Ile	Ser	Val	Ala	Tyr	Pro	Glu	Glu	Ile	Pro	Val	Asp	Pro	Leu	Ile
			20					25					30		
Asn	Lys	Leu	Gly	Asn	Leu	Ala	Gly	Asn	Thr	Ile	Gly	Ser	Lys	Val	Val
		35					40					45			
Ser	Ser														
	50														

<210> 4376

<211> 489

<212> PRT

<213> S.epidermidis

<400> 4376

Glu	Gly	Phe	Val	Leu	Gln	Asp	Phe	Asp	Asn	Leu	Ile	Pro	Gly	Trp	Phe
1				5					10					15	
Lys	Thr	Phe	Val	Gln	Val	Gly	Asn	Asp	Leu	Ile	Trp	Ser	Gln	Tyr	Leu
			20					25					30		
Ile	Gly	Leu	Leu	Leu	Thr	Ala	Gly	Phe	Phe	Phe	Thr	Ile	Ser	Ser	Lys
		35					40					45			
Phe	Ile	Gln	Leu	Arg	Met	Leu	Pro	Glu	Met	Phe	Arg	Ala	Leu	Thr	Glu
	50					55					60				
Lys	Pro	Glu	Thr	Leu	Ser	Gly	Glu	Lys	Gly	Ile	Ser	Pro	Phe	Gln	
65					70				75					80	
Ala	Phe	Ala	Ile	Ser	Ala	Gly	Ser	Arg	Val	Gly	Thr	Gly	Asn	Ile	Ala
				85					90					95	
Gly	Val	Ala	Thr	Ala	Ile	Val	Leu	Gly	Gly	Pro	Gly	Ala	Val	Phe	Trp
			100					105					110		
Met	Trp	Ile	Ile	Ala	Phe	Ile	Gly	Ala	Ala	Ser	Ala	Phe	Met	Glu	Ala
		115					120					125			
Thr	Leu	Ala	Gln	Val	Tyr	Lys	Val	His	Asp	Lys	Glu	Gly	Gly	Phe	Arg
		130				135					140				
Gly	Gly	Pro	Ala	Tyr	Tyr	Ile	Thr	Lys	Gly	Leu	Asn	Gln	Lys	Trp	Leu
145					150					155					160
Gly	Ile	Val	Phe	Ala	Val	Leu	Ile	Thr	Val	Thr	Phe	Ala	Phe	Val	Phe
			165						170					175	
Asn	Thr	Val	Gln	Ala	Asn	Thr	Ile	Ala	Glu	Ser	Leu	Asn	Thr	Gln	Tyr
		180						185					190		
Asn	Ile	Ser	Pro	Val	Ile	Thr	Gly	Ile	Val	Leu	Ala	Val	Ile	Thr	Gly
		195					200					205			
Ile	Ile	Ile	Phe	Gly	Gly	Val	Arg	Ser	Ile	Ala	Thr	Leu	Ser	Ser	Leu
		210				215					220				
Ile	Val	Pro	Ile	Met	Ala	Ile	Val	Tyr	Ile	Gly	Met	Val	Leu	Ile	Ile
225					230					235					240
Leu	Leu	Leu	Asn	Ile	Asp	Gln	Ile	Val	Pro	Met	Ile	Gly	Thr	Ile	Ile
			245						250					255	
Lys	Ser	Ala	Phe	Gly	Val	Gln	Gln	Val	Thr	Gly	Gly	Ala	Val	Gly	Ala

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<210> 4377
<211> 676
<212> PRT
<213> S.epidermidis
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Arg 1	Thr	Tyr	Val	Cys 5	Arg	Arg	Ala	Lys	Ser 10	Leu	Ala	Met	Asn	Lys 15	Gln
Asn	Asn	Tyr	Ser 20	Asp	Asp	Ser	Ile	Gln 25	Val	Leu	Glu	Gly	Leu 30	Glu	Ala
Val	Arg	Lys 35	Arg	Pro	Gly	Met	Tyr 40	Ile	Gly	Ser	Thr	Asp 45	Lys	Arg	Gly
Leu	His 50	His	Leu	Val	Tyr	Glu 55	Val	Val	Asp	Asn	Ser 60	Val	Asp	Glu	Val
Leu 65	Asn	Gly	Tyr	Gly	Asp 70	Ala	Ile	Thr	Val	Thr 75	Ile	Asn	Gln	Asp 80	Gly
Ser	Ile	Ser	Ile	Glu 85	Asp	Asn	Gly	Arg	Gly 90	Met	Pro	Thr	Gly 95	Ile	His
Ala	Ser	Gly	Lys 100	Pro	Thr	Ala	Glu	Val 105	Ile	Phe	Thr	Val	Leu 110	His	Ala
Gly	Gly	Lys 115	Phe	Gly	Gln	Gly	Gly 120	Tyr	Lys	Thr	Ser	Gly 125	Gly	Leu	His
Gly	Val 130	Gly	Ala	Ser	Val	Val 135	Asn	Ala	Leu	Ser	Glu 140	Trp	Leu	Glu	Val
Glu 145	Ile	His	Arg	Asp 150	Gly	Asn	Ile	Tyr	Thr	Gln 155	Asn	Phe	Lys	Asn 160	Gly

Gly	Ile	Pro	Ala	Thr	Gly	Leu	Val	Lys	Thr	Gly	Lys	Thr	Lys	Lys	Thr
				165					170					175	
Gly	Thr	Lys	Val	Thr	Phe	Lys	Pro	Asp	Ser	Glu	Ile	Phe	Lys	Ser	Thr
			180					185					190		
Thr	Thr	Phe	Asn	Phe	Asp	Ile	Leu	Ser	Glu	Arg	Leu	Gln	Glu	Ser	Ala
		195					200					205			
Phe	Leu	Leu	Lys	Asp	Leu	Lys	Ile	Thr	Leu	Thr	Asp	Leu	Arg	Ser	Gly
	210					215					220				
Lys	Glu	Arg	Glu	Glu	Ile	Tyr	His	Tyr	Glu	Glu	Gly	Ile	Lys	Glu	Phe
225					230					235					240
Val	Ser	Tyr	Val	Asn	Glu	Gly	Lys	Glu	Val	Leu	His	Asp	Val	Thr	Thr
				245					250					255	
Phe	Ala	Gly	His	Ser	Asn	Gly	Ile	Glu	Val	Asp	Val	Ala	Phe	Gln	Tyr
			260					265					270		
Asn	Asp	Gln	Tyr	Ser	Glu	Ser	Ile	Leu	Ser	Phe	Val	Asn	Asn	Val	Arg
		275					280					285			
Thr	Lys	Asp	Gly	Gly	Thr	His	Glu	Val	Gly	Phe	Lys	Thr	Ala	Met	Thr
	290					295					300				
Arg	Val	Phe	Asn	Glu	Tyr	Ala	Arg	Arg	Ile	Asn	Glu	Leu	Lys	Asp	Lys
305					310					315					320
Asp	Lys	Asn	Leu	Asp	Gly	Asn	Asp	Ile	Arg	Glu	Gly	Leu	Thr	Ala	Ile
				325					330					335	
Ile	Ser	Val	Arg	Ile	Pro	Glu	Glu	Leu	Leu	Gln	Phe	Glu	Gly	Gln	Thr
			340					345					350		
Lys	Ser	Lys	Leu	Gly	Thr	Ser	Glu	Ala	Arg	Ser	Ala	Val	Asp	Ser	Val
		355					360					365			
Val	Ser	Glu	Lys	Leu	Pro	Tyr	Tyr	Leu	Glu	Glu	Lys	Gly	Gln	Leu	Ser
	370					375					380				
Lys	Ser	Leu	Val	Lys	Lys	Ala	Ile	Lys	Ala	Gln	Gln	Ala	Arg	Glu	Ala
385					390					395					400
Ala	Arg	Lys	Ala	Arg	Glu	Asp	Ala	Arg	Ser	Gly	Lys	Lys	Asn	Lys	Arg
				405					410					415	
Lys	Asp	Thr	Leu	Leu	Ser	Gly	Lys	Leu	Thr	Pro	Ala	Gln	Ser	Lys	Asn
			420					425					430		
Thr	Asp	Lys	Asn	Glu	Leu	Tyr	Leu	Val	Glu	Gly	Asp	Ser	Ala	Gly	Gly
		435					440					445			
Ser	Ala	Lys	Leu	Gly	Arg	Asp	Arg	Lys	Phe	Gln	Ala	Ile	Leu	Pro	Leu
	450					455				460					
Arg	Gly	Lys	Val	Ile	Asn	Thr	Glu	Lys	Ala	Arg	Leu	Glu	Asp	Ile	Phe
465					470					475					480
Lys	Asn	Glu	Glu	Ile	Asn	Thr	Ile	Ile	His	Thr	Ile	Gly	Ala	Gly	Val
				485					490					495	
Gly	Thr	Asp	Phe	Lys	Ile	Glu	Asp	Ser	Asn	Tyr	Asn	Arg	Ile	Ile	Ile
			500					505					510		
Met	Thr	Asp	Ala	Asp	Thr	Asp	Gly	Ala	His	Ile	Gln	Val	Leu	Leu	Leu
		515					520					525			
Thr	Phe	Phe	Phe	Lys	Tyr	Met	Lys	Pro	Leu	Val	Gln	Ala	Gly	Arg	Val
	530					535					540				
Phe	Ile	Ala	Leu	Pro	Pro	Leu	Tyr	Lys	Leu	Glu	Lys	Gly	Lys	Gly	Lys
545					550					555					560
Asn	Lys	Lys	Val	Glu	Tyr	Ala	Trp	Thr	Asp	Glu	Glu	Leu	Glu	Asn	Leu
				565					570					575	
Gln	Lys	Gln	Leu	Gly	Lys	Gly	Phe	Ile	Leu	Gln	Arg	Tyr	Lys	Gly	Leu
			580					585					590		
Gly	Glu	Met	Asn	Pro	Glu	Gln	Leu	Trp	Glu	Thr	Thr	Met	Asn	Pro	Glu
		595					600					605			

Thr Arg Thr Leu¹ Ile Arg Val Gln Val Glu Asp Glu Val Arg Ser Ser
 610 615 620
 Lys Arg Val Thr Thr Leu Met Gly Asp Lys Val Ala Pro Arg Arg Glu
 625 630 635 640
 Trp Ile Glu Lys His Val Glu Phe Gly Met Gln Glu Asp Gln Ser Ile
 645 650 655
 Leu Asp Asn Lys Glu Val Gln Ile Leu Glu Asn Glu Lys Tyr Ile Glu
 660 665 670
 Glu Glu Thr Asn
 675

<210> 4378

<211> 344

<212> PRT

<213> S.epidermidis

<400> 4378

Phe Ile Phe Phe Ser Val Lys Ala Phe Gly Glu Thr Glu Phe Trp Leu
 1 5 10 15
 Ser Leu Ile Lys Val Ile Thr Ile Ile Val Phe Ile Ile Phe Gly Ile
 20 25 30
 Met Met Ile Phe Gly Ile Leu Gly Gly His Thr Tyr Gly Phe Glu Asn
 35 40 45
 Tyr Thr Lys Gly Gln Ala Pro Phe Val Gly Gly Ile Ser Gly Ile Leu
 50 55 60
 Ser Val Leu Leu Val Ala Gly Phe Ser Val Gly Gly Thr Glu Val Val
 65 70 75 80
 Ala Val Thr Ala Gly Glu Ser Asn Asn Pro Glu Lys Ser Met Pro Lys
 85 90 95
 Ala Ile Lys Gln Val Phe Trp Arg Ile Leu Leu Phe Tyr Val Leu Ser
 100 105 110
 Ile Ala Val Ile Ala Ala Ile Ile Pro Tyr Thr Asp Pro Leu Leu Leu
 115 120 125
 Asn Glu Asn Glu Ser Val Ser Gln Ser Pro Phe Thr Ile Val Phe Asp
 130 135 140
 Arg Ile Gly Ile Ala Phe Ala Ala Ser Val Ile Asn Ala Val Ile Leu
 145 150 155 160
 Thr Ser Leu Leu Ser Ala Ala Asn Ser Gly Ile Tyr Thr Thr Ser Arg
 165 170 175
 Met Leu Phe Ser Leu Ser Ala Asp Lys Gln Ala Pro Lys Phe Phe Gly
 180 185 190
 Lys Leu Asn Asp Lys Thr Lys Leu Pro Met Arg Ala Leu Ile Thr Thr
 195 200 205
 Tyr Ile Ile Ile Val Leu Val Ile Val Tyr Ala Asn Phe Asn Ala Asn
 210 215 220
 Ala Val Phe Asn Leu Leu Asn Ile Ile Gly Ser Met Val Ile Val Val
 225 230 235 240
 Trp Gly Ser Ser Ile Trp Ser Gln Ile Arg Leu Arg Gln Ala Ile Lys
 245 250 255
 Lys Gln Gly Lys Asn Pro Asp Lys Leu Leu Pro Tyr Lys Ala Pro Phe
 260 265 270
 Tyr Pro Val Gly Pro Ile Ile Val Leu Phe Thr Leu Leu Phe Leu Leu
 275 280 285
 Leu Gly Ser Ser Phe Gly Ser Ile Ala Ser Gly Asp Ile Leu Gly Val
 290 295 300
 Ile Arg Asn Phe Thr Pro Leu Phe Ile Leu Ala Ile Ile Tyr Ile Ala

305 310 315 320
 His Lys Leu Ile Lys Arg Thr His Phe Val Lys Leu Glu Glu Ile Asp
 325 330 335
 Leu Thr Pro His Asn Tyr Lys Asn
 340

<210> 4379

<211> 494

<212> PRT

<213> S.epidermidis

<400> 4379

Glu Tyr Leu Val Met Asn Phe Gly Phe Leu Gly Thr Ile Leu Thr Ile
 1 5 10 15
 Leu Leu Val Val Gly Phe Ile Thr Asn Val Val Leu Ala Phe Val Ile
 20 25 30
 Ile Phe Leu Glu Arg Asp Arg Arg Thr Ala Ser Ser Thr Trp Ala Trp
 35 40 45
 Leu Phe Val Leu Phe Val Leu Pro Val Ile Gly Phe Ile Leu Tyr Leu
 50 55 60
 Phe Leu Gly Arg Thr Val Ser Lys Lys Lys Met Glu Lys Asn Asn Gly
 65 70 75 80
 Asp Glu Leu His Ala Phe Glu Asp Leu Val Gln Asp Gln Ile Asp Ser
 85 90 95
 Phe Asp Lys His Asn Tyr Gly Tyr Ile Asn Asp Gln Val Ile Lys His
 100 105 110
 Arg Asp Leu Ile Arg Met Leu Leu Met Lys Gln Asp Ala Phe Leu Thr
 115 120 125
 Glu Asn Asn Lys Ile Asp Leu Phe Thr Asp Gly His Lys Leu Tyr Glu
 130 135 140
 Lys Val Leu Glu Asp Ile Tyr Asn Ala Gln Asp Tyr Ile His Leu Glu
 145 150 155 160
 Tyr Tyr Thr Phe Glu Leu Asp Gly Leu Gly Lys Arg Ile Leu Asp Ala
 165 170 175
 Leu Glu Thr Lys Leu Lys Glu Gly Leu Glu Val Lys Leu Leu Tyr Asp
 180 185 190
 Asp Val Gly Ser Lys Lys Val Arg Leu Ser Lys Phe Lys His Phe Arg
 195 200 205
 Ala Leu Gly Gly Glu Val Glu Ala Phe Phe Pro Ser Lys Val Pro Leu
 210 215 220
 Ile Asn Phe Arg Met Asn Asn Arg Asn His Arg Lys Ile Ile Ile Ile
 225 230 235 240
 Asp Gly Gln Ile Gly Tyr Val Gly Gly Phe Asn Val Gly Asp Asp Tyr
 245 250 255
 Leu Gly Leu Gly Lys Leu Gly Tyr Trp Arg Asp Thr His Thr Arg Val
 260 265 270
 Gln Gly Glu Cys Ile Asp Ala Leu Gln Leu Arg Phe Ile Leu Asp Trp
 275 280 285
 Asn Ser Gln Ser His Arg Pro Gln Phe Lys Phe Asp Gln Lys Tyr Phe
 290 295 300
 Pro Lys Lys Asn Gly Asp Lys Gly Asn Ala Ala Ile Gln Ile Ala Ser
 305 310 315 320
 Ser Gly Pro Ala Phe Asp Leu His Gln Ile Glu Tyr Gly Tyr Thr Lys
 325 330 335
 Met Ile Met Ser Ala Lys Lys Ser Ile Tyr Leu Gln Ser Pro Tyr Phe
 340 345 350

Ile Pro Asp Gln Ser Tyr Ile Asn Ala Leu Lys Met Ala Ala Asn Ser
 355 360 365
 Gly Val Glu Val Asn Leu Met Ile Pro Cys Lys Pro Asp His Pro Phe
 370 375 380
 Val Tyr Trp Ala Thr Phe Ser Asn Ala Ala Asp Leu Leu Asp Ser Gly
 385 390 395 400
 Val Asn Ile Tyr Thr Tyr Gln Asn Gly Phe Ile His Ser Lys Ile Leu
 405 410 415
 Met Ile Asp Asp Glu Ile Ser Ser Ile Gly Ser Ala Asn Met Asp Phe
 420 425 430
 Arg Ser Phe Glu Leu Asn Phe Glu Val Asn Ala Phe Ile Tyr Asp Glu
 435 440 445
 Asp Ile Ala Lys Gln Leu Arg Gln Ala Phe Glu Lys Asp Ile Glu Gln
 450 455 460
 Ser Lys Leu Leu Thr Lys Glu Val Tyr Asp Lys Arg Pro Leu Ser Ile
 465 470 475 480
 Lys Phe Lys Glu Gly Leu Ala Lys Leu Ile Ser Pro Ile Leu
 485 490

<210> 4380
 <211> 145
 <212> PRT
 <213> S.epidermidis

<400> 4380
 Ile Glu Leu Val Lys Leu Arg Asp Asp Val Gly Glu Leu Pro Ala Ala
 1 5 10 15
 Lys Glu Thr Ile Ile Val Ser Pro Ile Ala Leu Asp Ile Pro Asn Thr
 20 25 30
 Ile Glu Ala Thr Thr Pro Glu Val Ala Ala Gly Asn Thr Thr Phe Val
 35 40 45
 Ala Thr Ser Asn Leu Val Ala Pro Asn Pro Asn Ala Pro Ser Arg Ile
 50 55 60
 Leu Ser Gly Thr Asp Asp Ile Ala Ser Ser Leu Ile Leu Val Ile Ile
 65 70 75 80
 Gly Thr Ile Ile Ile Pro Thr Thr Ile Pro Gly Leu Ile Glu Leu Asn
 85 90 95
 Ser Pro Lys Leu Gly Ile Arg Phe Leu Asn Ile Gly Val Thr Asn Val
 100 105 110
 Lys Ala Lys Lys Pro Asn Thr Ile Val Gly Ile Pro Ala Lys Ile Ser
 115 120 125
 Asn Ile Gly Leu Met Ile Leu Arg Glu Arg Ser Asp Ala Tyr Ser Leu
 130 135 140
 Arg
 145

<210> 4381
 <211> 115
 <212> PRT
 <213> S.epidermidis

<400> 4381
 Cys Leu Ile Val Leu Asn Leu Val Leu Ile Lys Val Val Ile Ile Leu
 1 5 10 15
 Ala Met Thr Asn Arg Glu Lys Phe Lys Val Leu Ala Asp Gln Ile Lys
 20 25 30

Ile Ser Asn Gln Leu Glu Gln Asp Ile Leu Glu Gln Gly Glu Leu Thr
 35 40 45
 Arg Ile Asp Val Ser Asn Lys Asn Arg Thr Trp Thr Phe Gln Ile Ser
 50 55 60
 Leu Pro His Phe Leu Ser His Glu Asp Tyr Leu Leu Phe Thr His Ala
 65 70 75 80
 Ile Glu Glu Glu Phe Lys Glu Ile Ala Thr Val Ala Ile Asp Phe Ser
 85 90 95
 Ile Lys Asp Thr Asn Asn Gln Asp Glu Phe Arg Phe Lys Ile Phe Arg
 100 105 110
 Thr Leu Tyr
 115

<210> 4382

<211> 357

<212> PRT

<213> S.epidermidis

<400> 4382

Leu Ser Val Val Gly Gly Leu Val Leu Asp Asn Glu Arg Gln Lys Ala
 1 5 10 15
 Leu Asp Thr Val Ile Lys Asn Met Glu Lys Ser Phe Gly Lys Gly Ala
 20 25 30
 Val Met Lys Leu Gly Asp Asn Lys Gly Arg Arg Val Ser Ser Thr Ser
 35 40 45
 Ser Gly Ser Val Thr Val Asp Asn Ala Leu Gly Val Gly Gly Tyr Pro
 50 55 60
 Lys Gly Arg Ile Ile Glu Ile Tyr Gly Pro Glu Ser Ser Gly Lys Thr
 65 70 75 80
 Thr Val Ala Leu His Ala Ile Ala Glu Val Gln Lys Asn Gly Gly Val
 85 90 95
 Ala Ala Phe Ile Asp Ala Glu His Ala Leu Asp Pro Val Tyr Ala Gln
 100 105 110
 Ala Leu Gly Val Asp Ile Asp Asn Leu Tyr Leu Ser Gln Pro Asp His
 115 120 125
 Gly Glu Gln Gly Leu Glu Ile Ala Glu Ala Phe Val Arg Ser Gly Ala
 130 135 140
 Val Asp Ile Val Val Val Asp Ser Val Ala Ala Leu Thr Pro Lys Ala
 145 150 155 160
 Glu Ile Glu Gly Glu Met Gly Asp Thr His Val Gly Leu Gln Ala Arg
 165 170 175
 Leu Met Ser Gln Ala Leu Arg Lys Leu Ser Gly Ala Ile Ser Lys Ser
 180 185 190
 Asn Thr Thr Ala Ile Phe Ile Asn Gln Ile Arg Glu Lys Val Gly Val
 195 200 205
 Met Phe Gly Asn Pro Glu Thr Thr Pro Gly Gly Arg Ala Leu Lys Phe
 210 215 220
 Tyr Ser Ser Val Arg Leu Glu Val Arg Arg Ala Glu Gln Leu Lys Gln
 225 230 235 240
 Gly Gln Asp Ile Val Gly Asn Arg Thr Lys Ile Lys Val Val Lys Asn
 245 250 255
 Lys Val Ala Pro Phe Arg Val Ala Glu Val Asp Ile Met Tyr Gly
 260 265 270
 Gln Gly Ile Ser Lys Glu Gly Glu Leu Ile Asp Leu Gly Val Glu Asn
 275 280 285
 Asp Ile Val Asp Lys Ser Gly Ala Trp Tyr Ser Tyr Asn Gly Asp Arg

290 295 300
 Met Gly Gln Gly Lys Glu Asn Val Lys Asn Tyr Leu Lys Glu Asn Pro
 305 310 315 320
 Gln Ile Lys Glu Glu Ile Asp Arg Lys Leu Arg Glu Lys Leu Gly Ile
 325 330 335
 Phe Asp Gly Asp Val Asp Glu Asn Glu Asn Glu Asp Asp Ser Pro Lys
 340 345 350
 Thr Leu Phe Asp Glu
 355

<210> 4383
 <211> 48
 <212> PRT
 <213> S.epidermidis

<400> 4383
 Lys Asn Gly Phe Phe Phe His Leu Phe Leu Phe His Phe Ser Leu Asn
 1 5 10 15
 Ser Pro Arg Leu Lys Asn Thr Ser Ile Tyr Phe Leu Ile Tyr Cys Lys
 20 25 30
 Asn Lys Leu Lys Asn Thr Ile Phe Ile Leu Pro Gln Ile Thr Ile Leu
 35 40 45

<210> 4384
 <211> 535
 <212> PRT
 <213> S.epidermidis

<400> 4384
 Met Leu Gln Val Thr Asp Val Ser Leu Arg Phe Gly Asp Arg Lys Leu
 1 5 10 15
 Phe Glu Asp Val Asn Ile Lys Phe Thr Glu Gly Asn Cys Tyr Gly Leu
 20 25 30
 Ile Gly Ala Asn Gly Ala Gly Lys Ser Thr Phe Leu Lys Ile Leu Ser
 35 40 45
 Gly Glu Ile Asp Ser Gln Thr Gly His Val Ser Leu Gly Lys Asp Glu
 50 55 60
 Arg Leu Ala Val Leu Lys Gln Asp His Phe Ala Tyr Glu Asp Glu Arg
 65 70 75 80
 Val Leu Asp Val Val Ile Lys Gly His Glu Arg Leu Tyr Gln Val Met
 85 90 95
 Lys Glu Lys Asp Glu Ile Tyr Met Lys Pro Asp Phe Ser Asp Glu Asp
 100 105 110
 Gly Ile Arg Ala Ala Glu Leu Glu Gly Glu Phe Ala Glu Met Asn Gly
 115 120 125
 Trp Asn Ala Glu Ala Asp Ala Ala Asn Leu Leu Ser Gly Leu Gly Ile
 130 135 140
 Glu Pro Asp Leu His Asp Lys Asn Met Ser Glu Leu Glu Asn Asn Gln
 145 150 155 160
 Lys Val Lys Val Leu Leu Ala Gln Ser Leu Phe Gly Asp Pro Asp Val
 165 170 175
 Leu Leu Leu Asp Glu Pro Thr Asn Gly Leu Asp Ile Pro Ala Ile Ser
 180 185 190
 Trp Leu Glu Asp Phe Leu Ile Asn Phe Glu Asn Thr Val Ile Val Val
 195 200 205
 Ser His Asp Arg His Phe Leu Asn Asn Val Cys Thr His Ile Ala Asp

210	215	220
Leu Asp Phe Gly Lys Ile Lys Leu Tyr Val Gly Asn Tyr Asp Phe Trp		
225	230	235
Tyr Gln Ser Ser Gln Leu Ala Gln Lys Met Ala Gln Glu Gln Asn Lys		240
	245	250
Lys Lys Glu Glu Lys Met Lys Glu Leu Gln Asp Phe Ile Ala Arg Phe		255
	260	265
Ser Ala Asn Ala Ser Lys Ser Lys Gln Ala Thr Ser Arg Lys Lys Gln		270
	275	280
Leu Glu Lys Ile Glu Leu Asp Asp Ile Gln Pro Ser Ser Arg Arg Tyr		285
	290	295
Pro Tyr Val Lys Phe Thr Pro Glu Arg Glu Ile Gly Asn Asp Leu Leu		300
305	310	315
Thr Val Glu Asn Leu Ser Lys Thr Ile Asp Gly Glu Lys Val Leu Asp		320
	325	330
Asn Val Ser Phe Thr Met Asn Pro Asn Asp Lys Ala Ile Leu Val Gly		335
	340	345
Asp Ser Glu Ile Ala Lys Thr Thr Leu Leu Lys Ile Leu Ala Gly Glu		350
	355	360
Met Glu Pro Asp Glu Gly Thr Phe Lys Trp Gly Val Thr Thr Ser Leu		365
	370	375
Ser Tyr Phe Pro Lys Asp Asn Ser Glu Phe Phe Asp Gly Val Asp Met		380
385	390	395
Asn Leu Val Glu Trp Leu Arg Gln Tyr Ala Pro Glu Asp Glu Gln Thr		400
	405	410
Glu Thr Phe Leu Arg Gly Phe Leu Gly Arg Met Leu Phe Ser Gly Glu		415
	420	425
Glu Val Lys Lys Lys Ala Ser Val Leu Ser Gly Gly Glu Lys Val Arg		430
	435	440
Cys Met Leu Ser Lys Met Met Leu Ser Ser Ala Asn Val Leu Leu Leu		445
	450	455
Asp Glu Pro Thr Asn His Leu Asp Leu Glu Ser Ile Thr Ala Val Asn		460
465	470	475
Asp Gly Leu Lys Ser Phe Lys Gly Ser Ile Ile Phe Thr Ser Tyr Asp		480
	485	490
Phe Glu Phe Ile Asn Thr Ile Ala Asn Arg Val Ile Asp Leu Asn Gln		495
	500	505
Ala Gly Ala Leu Ser Lys Glu Val Pro Tyr Glu Glu Tyr Leu Gln Glu		510
	515	520
Ile Gly Val Leu Gln Asn Asn		525
530	535	

<210> 4385

<211> 261

<212> PRT

<213> S.epidermidis

<400> 4385

Lys Met Lys Val Arg Thr Leu Thr Ala Ile Ile Ala Leu Leu Ile Phe	
1	5
Leu Pro Ile Leu Leu Lys Gly Gly Leu Ile Leu Met Leu Phe Ala Phe	10
	15
	20
Leu Leu Ala Leu Ile Ala Leu Lys Glu Leu Leu Asn Met Asn Met Ile	25
	30
	35
Lys Phe Leu Ser Ile Pro Gly Leu Ile Ser Ala Leu Ala Leu Ile Ile	40
	45
50	55
	60

Ile Met Leu Pro Gln Asp Ala Gly Glu Trp Val Gln Val Ile Gln Leu
 65 70 75 80
 Lys Gly Leu Ile Ala Met Ser Phe Ile Val Leu Ser Tyr Thr Val Leu
 85 90 95
 Ser Lys Asn Arg Phe Ser Phe Met Asp Ala Ala Phe Cys Leu Met Ser
 100 105 110
 Val Ala Tyr Val Gly Ile Gly Phe Met Tyr Phe Tyr Glu Thr Arg Ser
 115 120 125
 Glu Gly Leu Arg Tyr Ile Leu Phe Ala Phe Leu Ile Val Trp Leu Thr
 130 135 140
 Asp Thr Gly Ala Tyr Ile Phe Gly Arg Leu Met Gly Lys His Lys Leu
 145 150 155 160
 Trp Pro Val Ile Ser Pro Asn Lys Thr Ile Glu Gly Phe Phe Gly Gly
 165 170 175
 Ile Leu Cys Ser Ile Leu Val Pro Leu Val Met Gln Met Phe Val Asp
 180 185 190
 Leu His Met Asn Ile Trp Leu Leu Leu Val Thr Ile Val Leu Ser
 195 200 205
 Met Phe Gly Gln Leu Gly Asp Leu Val Glu Ser Gly Phe Lys Arg His
 210 215 220
 Phe Gly Val Lys Asp Ser Gly Arg Ile Leu Pro Gly His Gly Gly Ile
 225 230 235 240
 Leu Asp Arg Phe Asp Ser Phe Met Phe Val Leu Pro Leu Leu Asn Ile
 245 250 255
 Leu Leu Ile Gln Thr
 260

<210> 4386

<211> 247

<212> PRT

<213> S.epidermidis

<400> 4386

Ile Lys Gly Val Ile Gln Leu Met Val Gln His Leu Ser Ala Gln Glu
 1 5 10 15
 Ile Ile Gln Tyr Ile Ser Asp Ala Lys Lys Ser Thr Pro Leu Lys Val
 20 25 30
 Tyr Val Asn Gly His Phe Glu Asn Val Thr Phe Pro Glu Ser Phe Lys
 35 40 45
 Val Phe Gly Ser Glu His Ser Lys Val Ile Phe Cys Glu Ala Asp Glu
 50 55 60
 Trp Lys Gln Phe Tyr Gln Gln Asn His Ser Leu Ile Thr Glu Leu Glu
 65 70 75 80
 Ile Glu Met Asp Arg Arg Asn Ser Ala Ile Pro Leu Lys Asp Leu Thr
 85 90 95
 Asn Thr Asn Ala Arg Ile Glu Pro Gly Ala Phe Ile Arg Glu Gln Ala
 100 105 110
 Ile Ile Glu Asp Gly Ala Val Val Met Met Gly Ala Thr Ile Asn Ile
 115 120 125
 Gly Ala Ile Val Gly Glu Gly Thr Met Ile Asp Met Asn Ala Thr Leu
 130 135 140
 Gly Gly Arg Ala Thr Thr Gly Lys Asn Val His Val Gly Ala Gly Ala
 145 150 155 160
 Val Leu Ala Gly Val Ile Glu Pro Pro Ser Ala Ser Pro Val Val Ile
 165 170 175
 Glu Asp Asn Val Leu Ile Gly Ala Asn Ala Val Ile Leu Glu Gly Val

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<210> 4387
<211> 85
<212> PRT
<213> S.epidermidis
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<210> 4388
<211> 183
<212> PRT
<213> S.epidermidis
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<400> 4388															
Cys	Arg	Gly	Val	Leu	Ile	Met	Lys	Glu	Asn	Ile	Leu	Pro	Ala	Ile	Arg
1				5					10					15	
Asn	Met	Arg	Asp	Leu	Glu	Lys	Leu	Ile	Lys	Thr	Asp	Tyr	Lys	Ala	Cys
			20					25					30		
Val	Val	Leu	Asp	Met	His	Ile	Gly	His	Leu	Lys	Ser	Ile	Met	Glu	Leu
		35					40					45			
Leu	Lys	Ser	His	Ser	Ile	Glu	Cys	Tyr	Val	His	Ile	Asp	Leu	Ile	Lys
	50					55				60					
Gly	Leu	Ser	His	Asp	Glu	Phe	Ala	Cys	Glu	Tyr	Ile	Ile	Gln	Gln	Tyr
65					70				75						80
Lys	Pro	Lys	Gly	Ile	Val	Ser	Thr	Lys	Ala	Lys	Val	Ile	Lys	Lys	Ala
				85					90					95	
Lys	Met	Leu	Asn	Thr	Leu	Thr	Ile	Phe	Arg	Val	Phe	Ile	Ile	Asp	Ser
			100					105				110			
Gln	Ala	Leu	Thr	Arg	Ser	Ile	Glu	Leu	Ile	Lys	Lys	Val	Glu	Pro	Asp
		115					120					125			
Tyr	Val	Glu	Val	Leu	Pro	Gly	Val	Ala	Ser	Lys	Ala	Val	Ser	Lys	Ile
	130					135					140				
Gln	Gln	Glu	Thr	Ser	Ala	Ser	Val	Ile	Ala	Gly	Gly	Leu	Ile	Asp	Glu
145					150				155						160
Gln	Ser	Glu	Ile	Arg	Glu	Ala	Ile	Ser	Asn	Gly	Ala	Lys	Tyr	Val	Thr

1604

Thr Ser Tyr Glu Lys Leu Trp
180

170

175

<210> 4389

<211> 728

<212> PRT

<213> S.epidermidis

<400> 4389

Met Asn Met Val Arg Ser Asp Tyr Met Ser Lys Lys Arg Ile Tyr Glu
1 5 10 15
Tyr Ala Lys Glu Leu Asn Leu Lys Ser Lys Glu Ile Ile Asp Glu Leu
20 25 30
Lys Ser Met Asn Val Glu Val Ser Asn His Met Gln Ala Leu Glu Glu
35 40 45
Glu Gln Ile Lys Ala Leu Asp Lys Lys Phe Lys Ala Ser Gln Ala Lys
50 55 60
Asp Thr Asn Lys Gln Asn Thr Gln Asn Asn His Gln Lys Ser Asn Asn
65 70 75 80
Lys Gln Asn Ser Asn Asp Lys Glu Lys Gln Gln Ser Lys Asn Asn Ser
85 90 95
Lys Pro Thr Lys Lys Lys Glu Gln Asn Asn Lys Gly Lys Gln Gln Asn
100 105 110
Lys Asn Asn Lys Thr Asn Lys Asn Gln Lys Asn Asn Lys Asn Lys Lys
115 120 125
Asn Asn Lys Asn Asn Lys Pro Gln Asn Glu Val Ala Glu Thr Lys Glu
130 135 140
Met Pro Ser Lys Ile Thr Tyr Gln Glu Gly Ile Thr Val Gly Glu Leu
145 150 155 160
Ala Glu Lys Leu Asn Val Glu Ser Ala Gly Ile Ile Lys Lys Leu Phe
165 170 175
Leu Leu Gly Ile Met Ala Asn Ile Asn Gln Ser Leu Asp Glu Glu Thr
180 185 190
Leu Glu Leu Ile Ala Asp Asp Tyr Gly Val Glu Ile Glu Lys Glu Val
195 200 205
Val Val Asp Glu Glu Asp Leu Ser Ile Tyr Phe Asp Asp Glu Thr Asp
210 215 220
Asp Ser Asp Ala Ile Glu Arg Pro Ala Val Val Thr Ile Met Gly His
225 230 235 240
Val Asp His Gly Lys Thr Thr Leu Leu Asp Ser Ile Arg Asn Thr Lys
245 250 255
Val Thr Glu Gly Glu Ala Gly Gly Ile Thr Gln His Ile Gly Ala Tyr
260 265 270
Gln Ile Glu Asn Ser Gly Lys Lys Ile Thr Phe Leu Asp Thr Pro Gly
275 280 285
His Ala Ala Phe Thr Thr Met Arg Ala Arg Gly Ala Gln Val Thr Asp
290 295 300
Ile Thr Ile Leu Val Val Ala Ala Asp Asp Gly Val Met Pro Gln Thr
305 310 315 320
Ile Glu Ala Ile Asn His Ala Lys Glu Ala Glu Val Pro Thr Ile Val
325 330 335
Ala Val Asn Lys Ile Asp Lys Pro Thr Ala Asn Pro Asp Arg Val Met
340 345 350
Gln Glu Leu Thr Glu Tyr Gly Leu Ile Pro Glu Asp Trp Gly Gly Asp
355 360 365

1604
170
175
4389
728
PRT
S.epidermidis
4389


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<210> 4391
<211> 226
<212> PRT
<213> S.epidermidis
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<400> 4391															
Phe	Glu	Glu	Val	Tyr	Ile	Phe	Met	Ser	Lys	Lys	Val	Leu	Phe	Val	Leu
1				5					10					15	
Thr	Ser	Thr	Ser	Gln	Phe	Thr	Asp	Gly	Thr	Glu	Thr	Gly	Leu	Trp	Leu
			20					25					30		
Glu	Glu	Ala	Gly	Ala	Pro	Tyr	Asn	Ile	Leu	Thr	Glu	Glu	Gly	Ile	Asn
		35					40					45			
Val	Asp	Val	Ile	Ser	Ile	Lys	Gly	Gly	Lys	Val	Asn	Leu	Asp	Pro	Asn
	50					55					60				
Ser	Val	Ser	Asn	Glu	Ser	Leu	Asn	Gln	Tyr	Ala	Lys	Phe	Val	Ser	His
65				70						75				80	
Leu	Asn	Asp	Thr	Pro	Ser	Ile	Glu	Asn	Val	Asn	Ala	Asp	Glu	Tyr	Asp
				85					90					95	
Ala	Ile	Tyr	Leu	Pro	Gly	Gly	His	Gly	Thr	Val	Tyr	Asp	Phe	Ala	Asn
			100					105					110		
Asn	Glu	Lys	Leu	Ala	Asp	Ile	Leu	Leu	Gln	Phe	Lys	Asn	Ser	Asn	Lys
		115					120					125			
Ile	Ile	Ser	Ser	Val	Cys	His	Gly	Pro	Ser	Ala	Phe	Val	Gly	Val	Lys
	130					135					140				

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<210> 4392
<211> 126
<212> PRT
<213> S.epidermidis
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<210> 4393
<211> 51
<212> PRT
<213> S.epidermidis
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<210> 4394
<211> 81
<212> PRT
<213> S.epidermidis
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<400> 4394

Leu	Leu	Val	Phe	Leu	Tyr	Thr	Leu	Tyr	Leu	Arg	Tyr	Trp	Phe	His	Thr
1				5					10					15	
Tyr	Leu	Cys	Tyr	Leu	Asn	Glu	Asp	Thr	Ile	Ala	Thr	Met	Glu	Met	Met
			20					25					30		
Leu	Val	Ser	Thr	Leu	Ser	Leu	Lys	Lys	Lys	Lys	Glu	Leu	Asn	Asn	Asn
			35				40					45			
Ile	Tyr	Asn	Phe	Arg	Leu	Glu	Gln	Gln	Asn	Asn	Asn	Val	Pro	Val	Phe
	50					55					60				
Phe	Ile	Phe	Lys	Ser	His	Thr	Phe	Ala	Ile	Met	Ile	Cys	Leu	Val	Ile
65					70					75					80
Ile															

<210> 4395

<211> 558

<212> PRT

<213> S.epidermidis

<400> 4395

Ile	Met	Ser	Leu	Ser	Thr	Leu	Lys	Arg	Asp	His	Ile	Lys	Lys	Asn	Leu
1				5					10					15	
Arg	Asp	Thr	Glu	Tyr	Asp	Val	Val	Ile	Val	Gly	Gly	Gly	Ile	Thr	Gly
			20					25					30		
Ala	Gly	Ile	Ala	Leu	Asp	Ala	Ser	Asn	Arg	Gly	Met	Lys	Val	Ala	Leu
			35				40					45			
Val	Glu	Met	Gln	Asp	Phe	Ala	Gln	Gly	Thr	Ser	Ser	Arg	Ser	Thr	Lys
	50					55					60				
Leu	Val	His	Gly	Gly	Leu	Arg	Tyr	Leu	Lys	Gln	Leu	Gln	Val	Gly	Val
65					70					75					80
Val	Ala	Glu	Thr	Gly	Lys	Glu	Arg	Ala	Ile	Val	Tyr	Glu	Asn	Gly	Pro
				85					90					95	
His	Val	Thr	Thr	Pro	Glu	Trp	Met	Leu	Leu	Pro	Met	His	Lys	Gly	Gly
			100					105					110		
Thr	Phe	Gly	Lys	Phe	Ser	Thr	Ser	Ile	Gly	Leu	Ala	Met	Tyr	Asp	Arg
			115				120						125		
Leu	Ala	Gly	Val	Lys	Lys	Ser	Glu	Arg	Lys	Lys	Met	Leu	Ser	Lys	Gln
	130					135					140				
Glu	Thr	Leu	Asn	Lys	Glu	Pro	Leu	Val	Lys	Arg	Asp	Gly	Leu	Lys	Gly
145					150					155					160
Gly	Gly	Tyr	Tyr	Val	Glu	Tyr	Arg	Thr	Asp	Asp	Ala	Arg	Leu	Thr	Ile
				165					170					175	
Glu	Val	Met	Lys	Lys	Ala	Ala	Glu	Asn	Gly	Ala	Glu	Ile	Ile	Asn	Tyr
			180					185					190		
Thr	Lys	Ser	Glu	His	Phe	Thr	Tyr	Asp	Ser	Asn	Lys	Lys	Val	Asn	Gly
		195					200					205			
Ile	Glu	Val	Leu	Asp	Met	Ile	Asp	Gly	Glu	Thr	Tyr	Ala	Ile	Lys	Ala
	210					215					220				
Lys	Lys	Val	Ile	Asn	Ala	Ser	Gly	Pro	Trp	Val	Asp	Glu	Val	Arg	Ser
225					230					235					240
Gly	Asp	Tyr	Ala	Arg	Asn	Asn	Lys	Gln	Leu	Arg	Leu	Thr	Lys	Gly	Val
				245					250					255	
His	Val	Val	Ile	Asp	Gln	Ser	Lys	Phe	Pro	Leu	Gly	Gln	Ala	Val	Tyr
			260					265					270		
Phe	Asp	Thr	Glu	Lys	Asp	Gly	Arg	Met	Ile	Phe	Ala	Ile	Pro	Arg	Glu
			275				280								

Gly Lys Ala Tyr Val Gly Thr Thr Asp Thr Phe Tyr Asp Asn Glu Lys
 290 295 300
 Ala Thr Pro Leu Thr Thr Gln Glu Asp Arg Asp Tyr Leu Ile Asn Ala
 305 310 315 320
 Ile Asn Tyr Met Phe Pro Thr Val Asn Val Lys Asp Glu Asp Ile Glu
 325 330 335
 Ser Thr Trp Ala Gly Ile Arg Pro Leu Ile Leu Glu Lys Gly Lys Asp
 340 345 350
 Pro Ser Glu Ile Ser Arg Lys Asp Glu Val Trp Glu Gly Glu Ser Gly
 355 360 365
 Leu Leu Thr Ile Ala Gly Gly Lys Leu Thr Gly Tyr Arg His Met Ala
 370 375 380
 Leu Glu Ile Val Asp Leu Leu Ala Lys Arg Leu Lys Gln Glu Tyr Gly
 385 390 395 400
 Leu Lys Phe Glu Ser Cys Ala Thr Lys Asn Leu Lys Ile Ser Gly Gly
 405 410 415
 Asp Val Gly Gly Ser Lys Asn Phe Glu His Phe Val Glu Gln Lys Val
 420 425 430
 Asp Ala Ala Lys Gly Phe Gly Ile Asp Glu Asp Val Ala Arg Arg Leu
 435 440 445
 Ala Ser Lys Tyr Gly Ser Asn Val Asp Gln Leu Phe Asn Ile Ala Gln
 450 455 460
 Thr Ala Pro Tyr His Asp Ser Lys Leu Pro Leu Glu Ile Tyr Val Glu
 465 470 475 480
 Leu Val Tyr Ser Ile Gln Gln Glu Met Val Tyr Lys Pro Thr Asp Phe
 485 490 495
 Leu Val Arg Arg Ser Gly Lys Leu Tyr Phe Asn Ile Gln Asp Val Leu
 500 505 510
 Asp Tyr Lys Asn Ala Val Ile Asp Val Met Ala Asp Met Leu Asn Tyr
 515 520 525
 Ser Glu Thr Gln Lys Glu Ala Tyr Thr Glu Glu Val Glu Val Ala Ile
 530 535 540
 Asp Glu Ala Arg Thr Gly Asn Asp Gln Pro Ala Thr Lys Ala
 545 550 555

<210> 4396

<211> 288

<212> PRT

<213> S.epidermidis

<400> 4396

Leu Ala Thr Phe Lys Asp Phe Arg Asn Asn Val Lys Pro Asn Trp Cys
 1 5 10 15
 Pro Gly Cys Gly Asp Phe Ser Val Gln Ala Ala Ile Gln Lys Ala Thr
 20 25 30
 Ala Asn Ile Gly Leu Glu Pro Glu Asp Val Ala Ile Ile Thr Gly Ile
 35 40 45
 Gly Cys Ser Gly Arg Leu Ser Gly Tyr Ile Asn Ser Tyr Gly Val His
 50 55 60
 Ser Ile His Gly Arg Ala Leu Pro Leu Ala Gln Gly Val Lys Met Ala
 65 70 75 80
 Asn Lys Asp Leu Thr Val Ile Ala Ser Gly Gly Asp Gly Asp Gly Tyr
 85 90 95
 Ala Ile Gly Met Gly His Thr Ile His Ala Leu Arg Arg Asn Met Asn
 100 105 110
 Met Thr Tyr Ile Val Met Asp Asn Gln Ile Tyr Gly Leu Thr Lys Gly

Leu Lys Glu Leu Thr Lys Glu Gly Lys Asp Trp Glu Ile Glu Cys Glu
 20 25 30
 Asn Arg Ser Ser Ile Val Thr Ile Leu Ala Leu His Gly Gly Gly Ile
 35 40 45
 Glu Pro Ala Thr Thr Glu Leu Ala Tyr Thr Ile Ala His Cys Gly Asp
 50 55 60
 Tyr Asn Tyr Phe Ser Phe Lys Gly Met Arg Ser Lys Gly Asn Asn Glu
 65 70 75 80
 Leu His Val Thr Ser Thr His Tyr Asp Asp Gln Ile Ala Leu Asp Leu
 85 90 95
 Val Arg Gly Ser Gln Arg Thr Val Ala Ile His Gly Cys Glu Gly Asn
 100 105 110
 Glu Ser Val Ala Tyr Ile Gly Gly Ser Asp Asp Arg Leu Ile Glu Leu
 115 120 125
 Ile Thr Glu Ser Leu Glu Asp Ile Gly Ile Ser Val Arg Glu Ala Pro
 130 135 140
 His His Ile Ser Gly Thr Gln Glu Asn Asn Ile Val Asn Met Thr Gln
 145 150 155 160
 Thr Gln Gly Gly Val Gln Leu Glu Leu Thr Ala Gln Leu Arg Lys Glu
 165 170 175
 Leu Phe Lys Asn Arg Lys Ser Ser Arg Lys Asn Arg Glu Asn Lys Asp
 180 185 190
 Asn Trp Asp Asp Leu Met Tyr Asp Phe Ala Asp Ala Met Lys Lys Ala
 195 200 205
 Ile Glu Arg Ala
 210

<210> 4400

<211> 682

<212> PRT

<213> S.epidermidis

<400> 4400

Leu Met Lys Phe Ser Trp Val Arg Trp Ile Leu Tyr Ile Val Ala Leu
 1 5 10 15
 Phe Leu Pro Ile Phe Ile Phe Tyr Thr Val Ala Arg Pro Val Asp Arg
 20 25 30
 Asn Asn Arg Asn Met Gly Val Tyr Cys Thr Val Val Ser Cys Val Glu
 35 40 45
 Trp Met Ala Ala Ala Thr Val Leu Tyr Phe Ala Ala Leu Ile Val Asp
 50 55 60
 Ile His Ile Ser Phe Met Thr Phe Val Arg Ile Phe Val Ile Ala Ala
 65 70 75 80
 Leu Ser Gly Leu Val Ser Phe Ile Pro Gly Gly Phe Gly Ala Phe Asp
 85 90 95
 Leu Val Val Leu Leu Gly Leu Lys Ser Leu Gly Ile Ser Glu Glu Lys
 100 105 110
 Ile Leu Leu Ala Leu Val Leu Tyr Arg Phe Ala Tyr Tyr Phe Val Pro
 115 120 125
 Val Met Ile Ala Leu Ile Leu Ser Ser Phe Glu Phe Gly Asn Thr Ala
 130 135 140
 Lys Lys Tyr Leu Asp Asn Ser Lys Tyr Phe Ile Pro Val Lys Asp Phe
 145 150 155 160
 Thr Ser Phe Leu Arg Ser Tyr Gln Lys Asp Ile Leu Ala Lys Val Pro
 165 170 175
 Ser Phe Ser Leu Ala Ile Leu Ile Phe Leu Thr Ser Ile Ile Phe Phe

625		630		635		640									
Phe	Gln	Gly	Leu	Arg	Arg	Tyr	Lys	Glu	Lys	Tyr	Ser	Pro	Asn	Trp	Glu
				645					650					655	
Pro	Arg	Phe	Leu	Val	Tyr	Gln	Lys	His	Tyr	Ser	Leu	Trp	Glu	Ser	Met
			660					665					670		
Leu	Lys	Val	Met	Arg	Val	Ile	Arg	His	Lys						
		675					680								

<210> 4401
 <211> 67
 <212> PRT
 <213> S.epidermidis

<400> 4401
 Ser Tyr Ile Ser Leu Cys Arg Leu Val Ser Ser Leu Ile Asn Arg His
 1 5 10 15
 Ser Leu Leu Leu Phe Glu Ile Ile Ile Ser Leu Ile Thr Phe Ser Asn
 20 25 30
 Thr His Leu Phe Val Met Leu Leu Thr Gln Asn Leu Cys Ser Asp Lys
 35 40 45
 Leu Leu Ile Gln Thr Asn Val Leu Gly Val Ile Leu Asp Asp Phe Lys
 50 55 60
 Ile Gln Ile
 65

<210> 4402
 <211> 208
 <212> PRT
 <213> S.epidermidis

<400> 4402
 Met Ala Ile Ser Ala Lys Leu Val Lys Glu Leu Arg Glu Lys Thr Gly
 1 5 10 15
 Ala Gly Met Met Asp Cys Lys Lys Ala Leu Thr Glu Thr Asp Gly Asp
 20 25 30
 Ile Asp Lys Ala Ile Asp Tyr Leu Arg Glu Lys Gly Ile Ala Lys Ala
 35 40 45
 Ala Lys Lys Ala Asp Arg Ile Ala Ala Glu Gly Leu Val His Val Glu
 50 55 60
 Val Lys Asp Asn Glu Ala Ala Ile Val Glu Ile Asn Ser Glu Thr Asp
 65 70 75 80
 Phe Val Ala Arg Asn Glu Gly Phe Gln Glu Leu Val Lys Glu Ile Ala
 85 90 95
 Asn His Ile Leu His Ser Lys Val Glu Thr Val Asp Ala Leu Met Glu
 100 105 110
 Ser Lys Leu Ser Ser Gly Lys Thr Val Asp Glu Arg Met Lys Glu Ala
 115 120 125
 Ile Ser Thr Ile Gly Glu Lys Leu Ser Ile Arg Arg Phe Ser Ile Arg
 130 135 140
 Thr Lys Thr Asp Asn Asp Ala Phe Gly Ala Tyr Leu His Met Gly Gly
 145 150 155 160
 Arg Ile Gly Val Leu Thr Val Met Glu Gly Thr Thr Asp Glu Glu Ala
 165 170 175
 Ala Lys Asp Val Ala Met His Ile Ala Ala Ile Asn Pro Lys Tyr Val
 180 185 190
 Ser Ser Glu Gln Val Ser Glu Glu Glu Ser Ile Met Lys Glu Lys Tyr

195

200

205

<210> 4403

<211> 290

<212> PRT

<213> S.epidermidis

<400> 4403

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Thr Lys Ile Ser Cys Ala Ser Leu Leu Thr Arg Gly Asp Gln Glu Met
1          5          10          15
Thr Phe Ala Lys Arg Lys Glu Trp Tyr Leu Glu Tyr Glu Ile Thr Val
          20          25          30
Asn Arg Ala Gly Leu Leu Gly Asp Ile Ser Ser Leu Leu Gly Met Leu
          35          40          45
Gly Ile Ser Ile Val Thr Ile Asn Gly Val Asp Gln Gly Lys Arg Gly
          50          55          60
Leu Leu Ile Lys Thr Asp Gln Leu Glu Lys Val Glu Arg Phe Glu Gln
          65          70          75          80
Ile Val Lys Glu Ile Asn Glu Ile Glu Ile Thr Lys Leu Arg Val Pro
          85          90          95
Glu Leu Arg Asp Arg Leu Ala Val Arg His Gly Arg Tyr Ile Glu Gln
          100          105          110
Asp Ala Asp Asp Lys Lys Thr Phe Lys Phe Glu Arg Glu Asp Leu Gly
          115          120          125
Leu Leu Val Asp Phe Leu Ala Glu Leu Phe Lys Glu Glu Gly His Lys
          130          135          140
Leu Ile Gly Ile Arg Gly Met Pro Arg Val Gly Lys Thr Glu Ser Ile
          145          150          155          160
Val Ala Gly Ser Val Cys Ala His Lys Arg Trp Leu Phe Ile Ser Ser
          165          170          175
Thr Leu Ile Lys Gln Thr Val Arg Arg Ser Leu Phe Lys Gly Glu Tyr
          180          185          190
Asp Ser Asn His Val Tyr Ile Ile Asp Gly Ala Val Thr Ala Arg Glu
          195          200          205
Leu Asn Pro Glu His Gln Glu Leu Val Arg Glu Val Met Thr Leu Pro
          210          215          220
Ser Ile Lys Val Val Glu His Pro Asp Leu Phe Val Glu Ser Cys Asn
          225          230          235          240
Tyr Asn Met Glu Asp Phe Asp Tyr Ile Ile Glu Leu Arg Glu Asn Glu
          245          250          255
Asp Gln Glu Ile Arg Tyr Glu Glu Met Lys Lys His Thr Val Gln Ser
          260          265          270
Lys Asn Asn Leu Asp Phe Gly Asp Pro Phe Gly Gly Gly Phe Gly Phe
          275          280          285
Phe Glu
          290

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<210> 4404

<211> 156

<212> PRT

<213> S.epidermidis

<400> 4404

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Glu Asp Val Ser Met Lys Lys Trp Gln Leu Val Gly Thr Thr Val Leu
1          5          10          15
Gly Ala Ser Val Leu Leu Gly Ala Cys Gly Gly Asn Asp Gly Gly Ser

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<210> 4410
 <211> 269
 <212> PRT
 <213> S.epidermidis

<400> 4410

Phe Leu Leu Ser Val Glu Cys Ile Asp Leu Phe Gly Cys Ser Gly Ala
 1 5 10 15
 Pro Asp Cys Ala Gly Val Pro Gly Ser Thr Gly Leu Pro Gly Ser Thr
 20 25 30
 Gly Leu Pro Asp Ser Ala Gly Leu Pro Gly Ser Ala Gly Val Pro Gly
 35 40 45
 Ser Ala Gly Leu Pro Gly Ser Ala Gly Val Pro Gly Ser Ala Gly Leu
 50 55 60
 Pro Gly Ser Ala Gly Val Pro Gly Ser Ala Gly Leu Pro Gly Ser Ala
 65 70 75 80
 Gly Val Pro Gly Ser Ala Gly Val Pro Gly Ser Ala Gly Leu Pro Gly
 85 90 95
 Ser Ala Gly Leu Pro Gly Ser Ala Gly Leu Pro Gly Ser Ala Gly Val
 100 105 110
 Pro Gly Ser Ala Gly Leu Pro Gly Ser Ala Gly Val Pro Gly Ser Ala
 115 120 125
 Gly Leu Pro Gly Ser Ala Gly Leu Pro Gly Ser Ala Gly Leu Pro Gly
 130 135 140
 Ser Ala Phe Val Gly Pro Tyr Ser Thr Ile Ser Ser Thr Gly Cys Leu
 145 150 155 160
 Val Thr Phe Ser Val Asp Leu Pro Ser Pro Thr Phe Ser Pro Val Ile
 165 170 175
 Gly Leu Thr Asn Ile Gly Val Val Ile Val Phe Val Pro Gly Ser Pro
 180 185 190
 Phe Cys Leu Thr Arg Ser Ser Pro Gly Phe Lys Ser Gly Leu Asn Thr
 195 200 205
 Arg Phe Leu Ser Asn Gly Ile Ser Ser Val Asp Val Ile Gly Leu Pro
 210 215 220
 Thr Phe Gly Pro Tyr Phe Val Thr Ser Ser Thr Gly Gly Val Thr Thr
 225 230 235 240
 Ser Pro Val Ser Gly Phe Leu Thr Pro Gly Leu Pro Gly Thr Ser Val
 245 250 255
 Leu Leu Ser Thr Gly Ala Phe Gly Ser Asn Ser Ser Leu
 260 265

<210> 4411
 <211> 125
 <212> PRT
 <213> S.epidermidis

<400> 4411

Val Met Thr Ser Ile Val Val Val Ser His Ser His Lys Ile Ala Glu
 1 5 10 15
 Gly Val Lys Gln Leu Ile Asn Gln Met Thr Asp Gly Gly Val Asp Leu
 20 25 30
 Ile Ala Val Gly Gly Leu Ser Asp Asp Glu Ile Gly Thr Ser Phe Asp
 35 40 45
 Gln Ile Val Ser Val Ile Asn Gly Leu Glu Asn Asp Ala Leu Cys Phe
 50 55 60

Tyr Asp Ile Gly Ser Ala Gly Met Asn Leu Asp Thr Ala Leu Glu Met
 65 70 75 80
 Tyr Glu Gly Asp His Lys Ile Val Lys Met Glu Ala Pro Ile Val Glu
 85 90 95
 Gly Ser Phe Ile Ala Ser Val Gly Ile Lys Ser Asn Met Ser Met Asp
 100 105 110
 Ser Val Ile Ser Glu Val Arg Ala Lys Tyr Pro Glu Glu
 115 120 125

<210> 4412
 <211> 538
 <212> PRT
 <213> S.epidermidis

<400> 4412
 Lys Leu Gly Ser Tyr Ser Thr Asn Pro Thr Ile Thr Cys Ile Gln Tyr
 1 5 10 15
 Ser Thr Ser Ser Ile Phe Gly Asp Asp Ser Met Lys Thr Tyr Lys Pro
 20 25 30
 Tyr Arg His Gln Leu Arg Arg Ser Leu Phe Ala Ser Thr Ile Phe Pro
 35 40 45
 Val Phe Met Val Met Ile Ile Gly Leu Ile Ser Phe Tyr Ala Ile Tyr
 50 55 60
 Ile Trp Val Glu His Arg Thr Ile His Gln His Thr Tyr Gln Thr Gln
 65 70 75 80
 Thr Glu Leu Gln Arg Ile Asp Lys His Phe His Thr Phe Val Thr Gln
 85 90 95
 Gln Gln Lys Gln Trp Arg His Val Asp Leu Ser His Pro Ala Asp Ile
 100 105 110
 Thr Lys Met Lys Arg Gln Leu Leu Lys Gln Val His Gln Gln Pro Ala
 115 120 125
 Ile Leu Tyr Tyr Asp Leu Lys Gly Ser Ser Gln Ser Phe Thr Asn Asn
 130 135 140
 Tyr Glu Gln Leu Asp Thr Thr Lys Met Tyr Leu Ile Ser Lys Tyr Arg
 145 150 155 160
 Ile Asp Phe Lys Asp Asp Thr Tyr Ile Leu Lys Ile Tyr Met Ser Ser
 165 170 175
 Thr Pro Leu Leu Lys Asn Ile Lys Lys Asn Ser Gly Gln Ser Ala Leu
 180 185 190
 Ile Val Asp Ser Tyr Asp Thr Val Leu Tyr Thr Asn Asp Asp Arg Phe
 195 200 205
 Ser Ile Gly Gln Lys Tyr Gln Pro Pro Gln Phe Gly Phe Ile Asn Glu
 210 215 220
 Ser Leu Lys Leu Asn Ser His His Ala His Leu Ile Ile Tyr Lys Asp
 225 230 235 240
 Ile His Glu Thr Ile Glu Asp Gly Ile Ala Leu Leu Val Val Met Gly
 245 250 255
 Val Val Leu Ile Leu Leu Val Ile Phe Gly Tyr Ile Ser Ala Asp Arg
 260 265 270
 Met Ala Lys Arg Gln Ser Glu Asp Ile Glu Ala Ile Val Arg Lys Ile
 275 280 285
 Asp Asp Ala Lys Asn Arg His Leu Gly Ser Tyr Glu Pro Leu Lys Lys
 290 295 300
 His Ser Glu Leu Glu Glu Ile Asn Asn Tyr Ile Tyr Asp Leu Phe Glu
 305 310 315 320
 Ser Asn Glu Gln Leu Ile Gln Ser Ile Glu Gln Thr Glu Arg Arg Leu

65 70 75 80 85 90 95 100 105 110 115 120 125 130 135 140 145 150 155 160 165 170 175 180 185 190 195 200 205 210 215 220 225 230 235 240 245 250 255 260 265 270 275 280 285 290 295 300 305 310 315 320

325 330 335
 Arg Asp Ile Gln Leu Lys Glu Ile Glu Arg Gln Phe Gln Pro His Phe
 340 345 350
 Leu Phe Asn Thr Met Gln Thr Ile Gln Tyr Leu Ile Pro Leu Ser Pro
 355 360 365
 Lys Val Ala Gln Thr Val Ile Gln Gln Leu Ser Gln Met Leu Arg Tyr
 370 375 380
 Ser Leu Arg Thr Ala Ser His Thr Val Lys Leu Ala Glu Glu Leu Ser
 385 390 395 400
 Tyr Ile Glu Gln Tyr Val Ala Ile Gln Asn Ile Arg Phe Asp Asp Met
 405 410 415
 Ile Gln Leu Tyr Ile Asp Ala Thr Glu Gly Val Gln His Gln Thr Ile
 420 425 430
 Gly Lys Met Met Leu Gln Pro Leu Val Glu Asn Ala Ile Lys His Gly
 435 440 445
 Arg Asp Ser Glu Pro Leu Lys Ile Thr Ile Arg Ile Arg Leu Thr Lys
 450 455 460
 Arg Lys Leu His Ile Leu Val His Asp Asn Gly Ile Gly Met Ser Pro
 465 470 475 480
 Ser His Leu Glu His Val Arg Gln Ser Leu His His Asp Val Phe Asp
 485 490 495
 Thr Thr His Leu Gly Leu Asn His Leu His Asn Arg Ala Met Ile Gln
 500 505 510
 Tyr Gly Thr Tyr Ala Arg Leu His Ile Phe Ser Arg Ser Gln Gln Gly
 515 520 525
 Thr Leu Met Cys Tyr Gln Ile Pro Leu Val
 530 535

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<211> 2404

<212> PRT

<213> S.epidermidis

<400> 4413

Cys Lys Leu Phe Met Ser Tyr Tyr Gly Asn Glu Tyr Glu Arg Arg Thr
 1 5 10 15
 Leu Met Asn Ile Glu Ala Leu Tyr Phe Gln Lys Tyr Phe Tyr Phe Lys
 20 25 30
 His Leu Asn Gln Ser Ser Ser Glu His Arg Val Thr Tyr Trp Val Lys
 35 40 45
 Leu Ser Arg Asp Ile Glu Leu Arg Arg Leu Met Tyr Ala Leu Leu Asp
 50 55 60
 Val Val Gln Ser Gln Pro Val Leu Arg Thr Gln Phe Val Thr Asp Asp
 65 70 75 80
 Phe Asn Gln Leu Lys Ile Asn Leu Arg Asp Phe Phe Pro Phe Ile Glu
 85 90 95
 Ile Lys Glu Val Asn Glu Met Ser Gln Ser Ile Asp Leu Glu Ala Phe
 100 105 110
 Phe Thr Arg Asn Leu Asn Ser Tyr His Phe Asn Gln Leu Pro Leu Phe
 115 120 125
 Asn Phe Lys Ile Tyr Gln Phe Leu Asp Glu Ala Tyr Leu Leu Leu Asp
 130 135 140
 Phe His Ala Thr Ile Phe Asn Glu Ser Gln Leu Thr Pro Phe Leu Gln
 145 150 155 160
 Gln Leu Asn Ile Ala Tyr Thr His Ser Leu Lys Ser Glu Tyr Ser Ile
 165 170 175

Ser	Asp	Phe	Tyr	Asn	Trp	Ile	Lys	Glu	Met	Asn	Gln	Lys	Met	Asp	Gln
			180					185					190		
Asn	Gln	Val	Val	Cys	Pro	Ser	Lys	His	Phe	Asn	Val	Leu	Asn	Ala	Asp
		195					200					205			
Gly	Asp	Asn	Tyr	Ala	Tyr	Ile	Pro	Val	Lys	Asn	Thr	Cys	Glu	Lys	Lys
	210					215					220				
Lys	Met	Cys	Ser	Leu	His	Ala	Glu	Leu	Pro	Ser	Leu	Asp	Ile	Asp	Val
225					230					235					240
Trp	Ile	Val	Ser	Ile	Tyr	Leu	Ala	His	His	Phe	Ile	Ser	Gln	Ser	Ser
			245						250					255	
Asp	Val	Thr	Leu	Gly	Ile	His	Phe	Ser	Ile	Asp	Asn	Lys	Asn	Thr	Glu
			260					265					270		
Asn	Met	Met	Val	Leu	Asn	Thr	Asp	Ile	Ala	Pro	Leu	Asn	Leu	Ser	Ile
		275					280					285			
Ser	Gln	Ser	Asp	Val	Val	Lys	Asp	Met	Val	Asp	Glu	Cys	Ser	Ala	Leu
	290					295					300				
Leu	Glu	Glu	Leu	Gln	Met	Cys	Gly	Ala	Ser	Phe	Val	Val	Gln	Pro	Lys
305					310					315					320
Ala	Val	Gln	Ile	Asp	Val	Glu	Thr	Met	Ile	His	Ile	Glu	Lys	Val	Gln
				325					330					335	
Glu	Gln	Phe	Glu	Leu	Asn	His	Ile	Cys	His	His	Ile	His	Arg	Leu	Tyr
			340					345					350		
Asn	Glu	Ala	Ser	Ser	Phe	Ala	Asp	Leu	Glu	Phe	Tyr	Pro	His	Val	Gln
		355					360					365			
Asp	Gly	Phe	Asp	Ile	Val	Tyr	Asn	Asp	Asn	Val	Tyr	Asp	Asp	Leu	Thr
	370					375					380				
Val	His	Thr	Leu	Val	Lys	Leu	Ile	Asn	Gly	Ile	Tyr	Met	Gln	Ile	Thr
385					390					395					400
Gln	Asn	Pro	Ser	Leu	Leu	Ile	Lys	Asp	Ile	Lys	Leu	Ser	Asp	Arg	Ser
				405					410					415	
Asp	Leu	Ala	Lys	Tyr	Asn	Asp	Ile	Asn	Leu	Gln	Asn	Asn	Asp	Ile	Asn
			420					425					430		
Tyr	Ser	Glu	Val	Thr	Tyr	Lys	Thr	Val	Val	Glu	Arg	Phe	Glu	Arg	Gln
		435					440					445			
Val	His	Gln	His	Pro	Asp	Ser	Ile	Ala	Leu	Gln	Tyr	Glu	Gln	Arg	Ser
	450					455					460				
Met	Thr	Tyr	His	Gln	Leu	Asn	Gln	Cys	Ala	Asn	Leu	Leu	Ala	Tyr	Arg
465					470					475					480
Leu	Arg	Leu	Asn	His	Gln	Ile	Glu	Pro	Asn	Asp	Met	Val	Ala	Leu	Ile
				485					490					495	
Ala	Glu	Arg	Ser	Leu	Glu	Met	Ile	Ile	Gly	Met	Leu	Gly	Ile	Leu	Lys
			500					505					510		
Ala	Gly	Ala	Gly	Tyr	Ile	Pro	Ile	Asp	Pro	Asp	Tyr	Pro	Glu	Glu	Arg
		515					520					525			
Met															

Gly	Thr	Val	Ala	Phe	Asp	Ala	Ala	Thr	Phe	Glu	Ile	Tyr	Gly	Pro	Leu
625					630					635					640
Leu	Asn	Gly	Gly	Arg	Leu	Val	Ile	Thr	Ser	Lys	Asp	Thr	Leu	Leu	Asn
				645					650						655
Pro	Gln	Leu	Leu	Asp	Gln	Ala	Ile	Thr	Glu	Asn	Lys	Val	Asn	Thr	Met
				660				665					670		
Trp	Leu	Thr	Ser	Ser	Leu	Phe	Asn	Gln	Ile	Ala	Ser	Glu	Arg	Ile	Glu
		675					680					685			
Ala	Leu	Glu	Ser	Leu	Thr	Tyr	Leu	Leu	Ile	Gly	Gly	Glu	Val	Leu	Asn
	690					695				700					
Ala	Lys	Trp	Val	His	Leu	Leu	Asn	Ser	Arg	Glu	Cys	His	Pro	Gln	Ile
705					710					715					720
Ile	Asn	Gly	Tyr	Gly	Pro	Thr	Glu	Asn	Thr	Thr	Phe	Thr	Thr	Thr	Phe
				725					730						735
Ala	Ile	Pro	Gln	Glu	Met	Pro	Ser	Arg	Ile	Pro	Ile	Gly	Leu	Pro	Ile
			740					745					750		
Ser	Gly	Thr	Thr	Val	Tyr	Val	Met	Gln	Gly	Asp	Arg	Ile	Cys	Gly	Val
		755					760					765			
Gly	Val	Pro	Gly	Glu	Leu	Cys	Ile	Gly	Gly	Ala	Gly	Leu	Ala	Lys	Gly
	770					775				780					
Tyr	Leu	Asn	Gln	Pro	Lys	Leu	Thr	Ala	Glu	Arg	Phe	Ile	Gln	Ser	Pro
785					790					795					800
Phe	Asn	Asn	Glu	Met	Leu	Tyr	Arg	Ser	Gly	Asp	Leu	Val	Arg	Leu	Gln
				805					810						815
Glu	Asp	Gly	Tyr	Ile	Asp	Tyr	Ile	Ser	Arg	Ile	Asp	Lys	Gln	Val	Lys
			820					825					830		
Ile	Arg	Gly	Phe	Arg	Ile	Glu	Leu	Ser	Glu	Ile	Glu	Lys	Ala	Leu	Glu
		835					840					845			
Ala	Ile	Arg	Asp	Ile	Asn	Lys	Ala	Val	Val	Ile	Val	Arg	Glu	Gln	Asp
	850					855					860				
Gln	Asp	Lys	Gln	Ile	Val	Ala	Tyr	Tyr	Glu	Ala	Ser	Gln	Leu	Lys	Ser
865					870					875					880
Thr	Gly	Gln	Leu	Lys	Asp	Ile	Leu	Ser	Glu	Thr	Leu	Pro	Glu	Tyr	Met
				885					890					895	
Ile	Pro	Val	His	Phe	Met	Lys	Val	Asp	Arg	Ile	Pro	Ile	Thr	Met	Asn
			900					905					910		
Gly	Lys	Leu	Asp	Val	Arg	Ala	Leu	Pro	Glu	Ile	Asn	Leu	Lys	Asn	Asn
		915					920				925				
Arg	Asn	Tyr	Val	Glu	Pro	Arg	Asn	Asp	Ile	Glu	Arg	Thr	Val	Cys	Arg
	930					935					940				
Ile	Phe	Glu	Glu	Ile	Leu	His	Val	Asp	Gln	Val	Gly	Val	Lys	Asp	Asn
945					950					955					960
Phe	Phe	Glu	Leu	Gly	Gly	His	Ser	Leu	Arg	Ala	Thr	Leu	Val	Val	Asn
				965					970					975	
Arg	Ile	Glu	Glu	Arg	Leu	Lys	Lys	Arg	Leu	Lys	Val	Gly	Asp	Leu	Met
		980						985					990		
Lys	Ser	Pro	Thr	Val	Glu	Gln	Leu	Gly	Gln	Gln	Ile	Glu	Glu	Leu	Gln
		995					1000					1005			
Asn	Asp	Val	Tyr	Glu	Val	Ile	Pro	Lys	Ala	Asn	Glu	Ser	Tyr	Gln	Tyr
	1010					1015					1020				
Asp	Leu	Ser	Ala	Ser	Gln	Lys	Ser	Met	Tyr	Leu	Leu	Trp	Lys	Val	Asn
1025					1030					1035					1040
Pro	Lys	Asp	Thr	Val	Tyr	Asn	Ile	Pro	Phe	Leu	Trp	Arg	Leu	Ser	Ser
				1045					1050					1055	
Glu	Leu	Asn	Val	Met	Gln	Leu	Gln	Arg	Ala	Leu	Ser	Lys	Leu	Ile	Glu
			1060					1065					1070		

Arg His Glu Ile Leu Arg Thr Gln Tyr Val Ile Asp Asp Asn Glu Val
 1075 1080 1085
 Lys Gln Arg Ile Ala Thr His Val Ser Pro Asp Phe Glu Glu Val Thr
 1090 1095 1100
 Thr Ser Leu Thr Asn Glu Gln Asp Ile Ile Gln Ser Phe Met Glu Pro
 1105 1110 1115 1120
 Phe Asp Leu Glu Gln Pro Ser Gln Met Arg Val Lys Tyr Ile His Gly
 1125 1130 1135
 Pro Gln Gln Asp Tyr Leu Phe Met Asp Thr His His Ser Ile Asn Asp
 1140 1145 1150
 Gly Met Ser Asn Thr Ile Leu Leu Ser Asp Leu Asn Ala Leu Tyr Gln
 1155 1160 1165
 Asp Lys Ser Leu Pro Glu Leu Lys Leu Gln Tyr Lys Asp Tyr Ser Glu
 1170 1175 1180
 Trp Met Val His Arg Asp Leu Ser Lys Gln Arg His Phe Trp Leu Gln
 1185 1190 1195 1200
 Gln Phe Glu Asn Gln Val Pro Ile Leu Asn Met Pro Thr Asp Tyr Pro
 1205 1210 1215
 Arg Pro Ser Ile Lys Thr Thr Asn Gly Asn Met Leu Thr Phe His Tyr
 1220 1225 1230
 Asn Arg Gln Ile Lys Gln Gln Leu Lys Ser Tyr Val Glu Gln His Gln
 1235 1240 1245
 Val Thr Asp Phe Met Phe Phe Ala Ser Ala Ile Met Val Leu Leu His
 1250 1255 1260
 Lys Tyr Thr Arg Gln Asp Asp Ile Ala Ile Gly Ser Val Ile Ser Ala
 1265 1270 1275 1280
 Arg Thr His Arg Asp Thr Glu Asn Met Leu Gly Met Phe Ala Asn Thr
 1285 1290 1295
 Leu Val Tyr Arg Gly Arg Pro His Asp Gln Lys Thr Trp Asp Gln Leu
 1300 1305 1310
 Met Ala Glu Met Lys Glu Met Cys Leu Gly Ala Tyr Glu His Gln Glu
 1315 1320 1325
 Tyr Pro Phe Glu Ser Leu Val Asn Asp Leu Val Asp Glu Arg Asp Ala
 1330 1335 1340
 Ser His Asn Pro Leu Phe Asp Val Met Leu Val Leu Gln Asn Asn Glu
 1345 1350 1355 1360
 Thr Asn His Ala Asn Phe Gly His Ser Gln Leu Thr His Ile Pro Pro
 1365 1370 1375
 Gln Ser Thr Thr Ala Lys Phe Asp Leu Ser Phe Ile Ile Glu Glu Asp
 1380 1385 1390
 Gln Asp Asp Tyr Val Val Asn Ile Glu Tyr Asn Thr Asp Leu Tyr Lys
 1395 1400 1405
 Gln Glu Thr Ile His His Ile Ala Glu Gln Leu Gln Met Ile Ile Lys
 1410 1415 1420
 His Val Ile Ser Thr Glu Asn Leu Lys Ile Gln Asp Ile Asp Glu Asn
 1425 1430 1435 1440
 Asp Asp Leu Leu Ile Trp Leu Asp Lys His Val Asn Asp Cys Ser Leu
 1445 1450 1455
 Asp Leu Pro Lys Asn Lys Ser Ile Gln Gln Leu Leu His Asp Val Met
 1460 1465 1470
 Lys Ala Lys Ala Asp Asp Val Ala Leu Lys Met Asn Gly Gln Ser Met
 1475 1480 1485
 Thr Tyr Gln Glu Leu Asp Asp Tyr Ser Asn Ser Met Ala Gln Thr Leu
 1490 1495 1500
 Ile Gln Asn Gly Ile Gln Lys Gly Glu Arg Val Ala Leu Leu Thr Glu
 1505 1510 1515 1520

Arg	Ser	Phe	Glu	Met	Val	Ala	Ser	Met	Ile	Ala	Val	Leu	Lys	Val	Gly	1525	1530	1535
Gly	Ser	Tyr	Val	Pro	Ile	Asp	Val	Thr	Tyr	Pro	Asp	Lys	Arg	Ile	Glu	1540	1545	1550
Phe	Ile	Ile	Glu	Asp	Ala	Glu	Val	Ala	Ala	Val	Leu	Thr	Tyr	Gly	Lys	1555	1560	1565
Ala	Ile	Ser	Ser	His	Ile	Pro	Val	Ile	Lys	Ile	Glu	Asp	Ile	Asp	Asn	1570	1575	1580
Thr	Glu	Asn	Asn	Lys	Arg	Leu	Asn	Ile	Glu	Tyr	Ala	Gly	Asn	Leu	Glu	1585	1590	1595
Asp	Asp	Met	Tyr	His	Ile	Tyr	Thr	Ser	Gly	Thr	Thr	Gly	Lys	Pro	Lys	1605	1610	1615
Ala	Val	Ser	Val	Lys	Gln	Arg	Asn	Ile	Leu	Asn	Leu	Val	Cys	Ala	Trp	1620	1625	1630
Thr	Lys	Arg	Leu	Asn	Leu	Ser	Asp	Glu	Val	Tyr	Leu	Gln	Tyr	Ala		1635	1640	1645
Asn	Tyr	Val	Phe	Asp	Ala	Ser	Ala	Thr	Asp	Phe	Tyr	Cys	Ser	Leu	Leu	1650	1655	1660
Asn	Gly	Tyr	Pro	Leu	Val	Ile	Ala	Thr	Ser	Val	Glu	Arg	Thr	Asn	Thr	1665	1670	1675
Asp	Leu	Leu	Glu	Lys	Leu	Ile	Ser	Gln	Glu	Asn	Ile	Thr	Ile	Ala	Ser	1685	1690	1695
Ile	Pro	Leu	Gln	Val	Tyr	Asn	Val	Met	His	His	Phe	Tyr	Ile	Pro	Lys	1700	1705	1710
Val	Ile	Thr	Gly	Gly	Ala	Pro	Ser	Thr	Pro	Ala	Phe	Val	Gln	His	Ile	1715	1720	1725
Ser	Lys	His	Cys	Asp	Met	Tyr	Val	Asn	Ala	Tyr	Gly	Pro	Ser	Glu	Asn	1730	1735	1740
Thr	Val	Ile	Thr	Ser	Cys	Trp	Ile	Tyr	Glu	Lys	Gly	Asp	Ala	Ile	Pro	1745	1750	1755
Ser	Thr	Ile	Pro	Ile	Gly	Lys	Pro	Leu	Ala	Asn	Val	Asp	Ile	Phe	Ile	1765	1770	1775
Met	Ser	Gly	Gly	Lys	Leu	Cys	Gly	Val	Gly	Ile	Pro	Gly	Glu	Leu	Cys	1780	1785	1790
Ile	Ala	Gly	Glu	Ser	Leu	Thr	Ser	Gly	Tyr	Leu	Asn	Arg	Pro	Glu	Leu	1795	1800	1805
Ser	Ala	Glu	Lys	Phe	Ile	Asn	Asn	Pro	Phe	Gly	Pro	Gly	Gln	Leu	Tyr	1810	1815	1820
Arg	Ser	Gly	Asp	Leu	Ala	Arg	Leu	Met	Pro	Asp	Gly	Gln	Ile	Glu	Phe	1825	1830	1835
Leu	Gly	Arg	Ile	Asp	Lys	Gln	Val	Lys	Val	His	Gly	Tyr	Arg	Ile	Glu	1845	1850	1855
Leu	Gly	Glu	Ile	Glu	Asn	Ile	Ile	Asn	Ser	Val	Asp	Thr	Val	Thr	Asp	1860	1865	1870
Ser	Val	Val	Ile	Leu	Ala	Lys	Gln	Gly	Glu	Arg	Glu	Val	Leu	His	Ala	1875	1880	1885
Tyr	Tyr	Val	Gly	Ser	Gln	Glu	Asp	Glu	Asn	His	Ile	Ser	Gln	His	Leu	1890	1895	1900
Asn	Gln	Tyr	Leu	Pro	Lys	Tyr	Met	Ile	Pro	Lys	Thr	Leu	Thr	Ala	Ile	1905	1910	1915
Ser	Glu	Ile	Pro	Leu	Thr	Gly	Asn	Asp	Lys	Val	Asp	Glu	Ser	Arg	Leu	1925	1930	1935
Pro	Val	Pro	Asn	Val	His	Lys	Asn	Lys	Phe	Val	Ala	Pro	Arg	Asn	Asn	1940	1945	1950
Ile	Glu	Arg	Glu	Ile	Ala	Gln	Ile	Val	Ser	Gly	Val	Leu	Asp	Val	Ser	1955	1960	1965

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 <212> PRT
 <213> S.epidermidis

<400> 4414
 Gly Tyr Thr Pro Thr His Val Lys Asn Arg Phe Ile Tyr Phe Val Lys
 1 5 10 15
 Thr Lys Glu Met Lys Leu Tyr Gln Thr Phe Ile Ala Ile Glu Tyr Ser
 20 25 30
 Arg Phe Leu Ile Thr Ile Glu Glu Thr Phe Thr Phe Ile Ser Phe
 35 40 45

<210> 4415
 <211> 312
 <212> PRT
 <213> S.epidermidis

<400> 4415
 Ala Tyr His Pro Leu Lys Asn Gly Val Glu Asn Lys Phe Leu Ile Ile
 1 5 10 15
 Ser Met Tyr Phe Asn Leu Lys Ile Lys Arg Met Asn Lys Met Lys Phe
 20 25 30
 Lys Lys Ser Leu Ile Thr Ala Leu Ala Thr Ile Thr Leu Val Pro Ser
 35 40 45
 Leu Met Ile Leu Asp Thr Gln His Glu Ala Lys Ala Val Gly Asn Tyr
 50 55 60
 Tyr Tyr Asn Gly Met Glu Asp His Asn Ala Ser Ala Ala Tyr His Lys
 65 70 75 80
 Ala Lys Lys Val Asp Asn Ser Gln Ile Val Ile Lys Arg Tyr Asn Tyr
 85 90 95
 Ala His Lys Asn Lys Tyr Lys Ala Val Gly Arg Val Ser Asn Met Asp
 100 105 110
 Gly Trp Lys Gly Pro Gly Lys Asp Ser Met Gly Thr Gly Phe Met Val
 115 120 125
 Gly Asn His Thr Phe Val Thr Asn Ala His Val Val Asp Lys Lys Asn
 130 135 140
 Gly Gln Arg Thr Ser Pro Ser Lys Ile Lys Phe Gln Leu Asn Arg Asp
 145 150 155 160
 Gly Lys Lys Ile Pro Tyr Gln Phe His Ala Lys Lys Ile Tyr Lys Ile
 165 170 175
 Pro Ser Tyr Asp Met Val Val Val Glu Thr Lys Glu Asn Met Ala Gln
 180 185 190
 Lys Ala Asn Val Gln Pro Leu Lys Leu Ala Thr Asn Gln Lys Ile Lys
 195 200 205
 Ser Leu Lys Phe Asn Lys Lys Leu Tyr Ser Leu Gly Tyr Pro Val Met
 210 215 220
 Asn Gly Asn Asn Thr Tyr Ala Tyr Trp Asn Lys Leu Arg Phe Leu Gln
 225 230 235 240
 Glu Ala Ser Asn Lys Ser Glu Leu Met Thr Lys Asp Lys Phe Arg Ala
 245 250 255
 Gly Asp Ser Gly Ser Pro Met Val Asp Ser Gln Tyr Val Val Tyr Gly
 260 265 270
 Val Arg Thr Tyr Gly Tyr Asn Leu Arg Gly Ser Ser Asn His Pro Tyr
 275 280 285

Ala Gln Gln Glu Val Ala Gly Ala Glu Ser Leu Tyr Gly Asn Pro Arg
 290 295 300
 Asp Phe Ile Leu Lys His Asn Lys
 305 310

<210> 4416

<211> 71

<212> PRT

<213> S.epidermidis

<400> 4416

Ile Lys Val Pro Pro Phe Ile Leu Asn Asn Asn Ile Pro Ser Leu Arg
 1 5 10 15
 Ile Ile Glu Asn Arg Ile Pro Gly Ala Ser Cys Val Gly Thr Ser Ser
 20 25 30
 Ser His Asn Lys Gly Met Asn Ala Phe Asp Ile Lys Val Lys Ile Gly
 35 40 45
 Val Arg Asp Asn Arg Leu Thr Ile Arg Gln Ile Pro Ile Lys Ile Gly
 50 55 60
 Lys Ala Cys Thr Ile Asn Ile
 65 70

<210> 4417

<211> 207

<212> PRT

<213> S.epidermidis

<400> 4417

Leu Lys Lys Phe Leu Lys Gly Phe Ile Leu Phe Phe Leu Ile Val Met
 1 5 10 15
 Leu Gly Phe Ala Gly Gly Leu Gly Tyr Ser His Tyr Lys Asp Ser Lys
 20 25 30
 Ala Asn Thr Asp Val Ser Ser Lys Glu Thr Gln Thr Ser Asn Lys Asn
 35 40 45
 Thr His Glu Asp Thr Ile Ser Gln Asp Glu Met Gln Asn Gln Val Asp
 50 55 60
 Ser Gln Thr Asn Glu Val Ser Asn Glu Thr Ser Thr Lys Thr Leu Ser
 65 70 75 80
 Glu Lys Ala Lys Arg Leu Arg Glu Ala Phe Asn Val Asn Asp Glu Glu
 85 90 95
 Ala Gln Ile Leu Ala Asp Glu Ile Asp Arg Ala Asp Val Asn Lys Asp
 100 105 110
 Gly Thr Ile Thr Met Asp Glu Met Thr Pro Thr Leu Asp Arg Phe Ala
 115 120 125
 Lys Glu Gly Lys Phe Gln Pro Ser Ala Gly Gly Thr Thr Asn Glu Ala
 130 135 140
 His His Pro Lys Tyr Thr Ala Glu Asp Ala Arg Asn Met Ser Asp Asp
 145 150 155 160
 Glu Phe Leu Asp Ala Tyr Thr Glu Gly Met Ser Asp Asp Glu Ala Ala
 165 170 175
 Thr Ile His Glu Ser Ala Gln Glu Ser Asn Glu Tyr Met Lys Phe Leu
 180 185 190
 Arg Gly Gln Val Glu Ala Arg Ala Lys Gly Gln Gly Gly Asn Tyr
 195 200 205

<210> 4418

<211> 320
 <212> PRT
 <213> S.epidermidis

<400> 4418

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Met Lys Lys Leu Ile Gln Asp Lys Asn Thr Ile Leu Lys Asp Met Leu
1      5      10      15
Asp Gly Ile Thr Val Ser Asn Asn Asp Val Glu Val Val Ser Asp Thr
      20      25      30
Ile Val Val Arg Lys His Lys Lys Gln Ser Gly Val Ala Leu Val Ser
      35      40      45
Gly Gly Gly Ser Gly His Glu Pro Ala His Ala Gly Phe Val Ala Glu
      50      55      60
Gly Met Leu Asp Ala Ala Val Cys Gly Glu Ile Phe Thr Ser Pro Thr
65      70      75      80
Pro Asp Lys Ile Leu Asp Ala Ile Lys Ala Val Asp Asn Gly Asp Gly
      85      90      95
Val Leu Leu Val Ile Lys Asn Tyr Ala Gly Asp Val Met Asn Phe Glu
      100     105     110
Met Ala Gln Glu Met Ala Gln Met Glu Asp Ile Lys Val Glu Ser Val
      115     120     125
Ile Val Arg Asp Asp Ile Ala Ile Ser Asp Pro Glu Lys Arg Arg Gly
      130     135     140
Val Ala Gly Thr Val Phe Val His Lys Tyr Ala Gly Tyr Leu Ala Glu
145      150     155     160
Lys Gly Val Ala Leu Asp Glu Ile Lys Ser Lys Val Glu Ala Leu Leu
      165     170     175
Pro Asp Ile Lys Ser Ile Gly Met Ala Leu Thr Pro Pro Met Val Pro
      180     185     190
Thr Thr Gly Lys Asn Gly Phe Asp Ile Glu Asp Asn Gln Met Glu Ile
      195     200     205
Gly Ile Gly Ile His Gly Glu Lys Gly Leu His Arg Glu Asp Val Gln
      210     215     220
Pro Ile Asn Val Ile Val Glu Arg Leu Leu Asp Gln Leu Tyr Lys Glu
225      230     235     240
Ile Glu Lys Lys Pro Leu Ile Val Met Val Asn Gly Met Gly Gly Thr
      245     250     255
Pro Leu Ser Glu Leu Asn Ile Val Thr Lys Tyr Leu Asp Glu Gln Phe
      260     265     270
Asn Gln Asn Asp Ile Asp Val Lys Gln Trp Phe Val Gly Asp Tyr Met
      275     280     285
Thr Ala Leu Asp Met Gln Gly Phe Ser Ile Thr Val Leu Pro Phe Ser
      290     295     300
Glu Glu Leu Ser Glu Ala Leu Ala Ala Pro Thr Ala Ser Lys Tyr Phe
305      310     315     320

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<210> 4419
 <211> 280
 <212> PRT
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<400> 4419

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Trp Glu Lys Leu Phe Gln Arg Arg Thr Val Ala Leu Leu Leu Pro Trp
1      5      10      15
Cys Ile Val Arg Arg Phe Arg Leu Ile Met Ser Asn Tyr Gln Gln Lys
      20      25      30

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50		55		60
Tyr Thr His Ile Ala Phe Ser Ile Asp Glu Glu Asp Phe Gln Gln Trp				
65		70		75
Ile Gln Trp Leu Lys Glu Asn Gln Val Asn Ile Leu Lys Gly Arg Pro				80
	85		90	95
Arg Asp Ile Lys Asp Lys Lys Ser Ile Tyr Phe Thr Asp Pro Asp Gly				
	100		105	110
His Lys Ile Glu Leu His Thr Gly Thr Leu Lys Asp Arg Met Glu Tyr				
	115		120	125
Tyr Lys Cys Glu Asn Thr His Met Gln Phe Tyr Asp Glu Phe				
130		135		140

<210> 4423

<211> 45

<212> PRT

<213> S.epidermidis

<400> 4423

Lys Lys Val Thr Leu His Thr Arg Tyr Ile Lys Tyr Met Tyr Leu Thr				
1		5		10
Phe Lys Ile Lys Tyr Met Gly Gly Ile Ile Trp Ala Asn Val Asp Lys				15
	20		25	30
Val Leu Leu Ile Lys Lys Trp Ile Phe Tyr Leu Thr Asn				
	35		40	45

<210> 4424

<211> 273

<212> PRT

<213> S.epidermidis

<400> 4424

Lys His Val Thr Leu Leu Lys Val Ala His Leu Gly Ile Lys Asp Thr				
1		5		10
Trp Ser Asp Glu Thr Leu Val Asp Asn Val Asn Phe Thr Val Gln Cys				15
	20		25	30
Gly Glu Thr Leu Gly Ile Ile Gly Glu Ser Gly Ser Gly Lys Ser Ile				
	35		40	45
Thr Cys Lys Ala Leu Ile Gly Leu Asn Ala Gln Arg Leu Ser Val Ser				
	50		55	60
Gly Asp Ile Phe Phe Glu His Gln Asn Leu Asn Thr Ile Thr Glu Lys				
65		70		75
Gln Leu Arg Lys Ile Arg Gly Lys Asp Ile Ala Met Ile Met Gln Gln				
	85		90	95
Gly Thr Arg Ala Phe Asp Pro Ser Thr Lys Val Gly Lys Gln Met Ile				
	100		105	110
Glu Thr Leu Arg Ala His Thr Thr Leu Ser Lys Gln Gln Ile Lys Gln				
	115		120	125
Glu Leu Ile His Tyr Met Thr Tyr Met Lys Leu Lys Asp Pro Gln Ser				
	130		135	140
Leu Leu Lys Ala Tyr Pro Tyr Met Leu Ser Gly Gly Met Leu Gln Arg				
145		150		155
Met Met Ile Ala Leu Ala Leu Ala Leu Lys Pro Lys Leu Ile Ile Ala				
	165		170	175
Asp Glu Pro Thr Thr Ala Leu Asp Thr Ile Thr Gln Tyr Glu Val Ile				
	180		185	190
Asn Ala Phe Lys Asp Ile Lys His His Phe Asp Cys Ala Met Ile Phe				

Gly Glu Glu Ile Glu
305

<210> 4426

<211> 65

<212> PRT

<213> S.epidermidis

<400> 4426

Leu	Leu	Tyr	Phe	Lys	Ile	Ile	Ile	Val	Phe	Lys	Tyr	Ile	Ile	Leu	Val
1				5					10					15	
Ile	Ser	Ile	Leu	Ile	Val	Ser	Glu	Ile	Lys	Phe	Asn	Ser	Thr	Thr	Thr
			20					25					30		
Gln	Lys	Arg	Glu	Gly	Glu	Phe	Val	Leu	Ser	Phe	Leu	Gly	Phe	Leu	Lys
		35					40					45			
Val	Asn	Arg	Lys	Lys	Val	Leu	Ser	Asn	Gly	Met	Glu	Leu	Leu	Asn	Ile
	50						55					60			Phe
Ser															
65															

<210> 4427

<211> 327

<212> PRT

<213> S.epidermidis

<400> 4427

Val	Leu	Tyr	Leu	Glu	Met	Thr	Tyr	Cys	Ser	Leu	Ser	Ile	Lys	Ile	Tyr
1				5					10					15	
Thr	Leu	Lys	Ile	Leu	Ile	Val	Leu	Thr	Ile	Gly	Gly	His	Val	Val	Ile
			20					25					30		
Met	Ser	Gln	Phe	Lys	Asp	Thr	Leu	Tyr	Lys	Leu	Phe	Glu	Pro	Met	Met
		35					40					45			
Lys	Ile	Glu	Phe	Tyr	Gln	Asn	Leu	Leu	Val	Asn	Leu	Leu	Ile	Ile	Leu
	50					55					60				
Ala	Tyr	Ile	Leu	Met	Gly	Met	Ile	Val	Ile	Ala	Ile	Ser	Arg	Lys	Leu
65					70					75					80
Val	Thr	Lys	Phe	Phe	Asn	Val	Asn	Glu	Lys	Lys	Lys	Asn	Arg	His	Lys
				85					90					95	
Ile	Lys	Arg	Ser	Glu	Thr	Leu	Ser	Thr	Leu	Ile	Gln	Asn	Leu	Ile	Ser
			100					105					110		
Tyr	Val	Val	Trp	Phe	Ile	Val	Leu	Thr	Ser	Ile	Leu	Ser	Arg	Phe	Gly
		115					120					125			
Ile	Ser	Val	Ser	Ala	Ile	Leu	Ala	Gly	Ala	Gly	Val	Val	Gly	Val	Ala
	130					135					140				
Val	Gly	Phe	Gly	Ala	Gln	Thr	Ile	Val	Lys	Asp	Ile	Ile	Thr	Gly	Phe
145					150					155					160
Phe	Ile	Ile	Phe	Glu	Gly	Gln	Phe	Asp	Val	Ser	Asp	Tyr	Val	Gln	Ile
			165					170						175	
Asn	Ala	Ser	Gly	Val	Thr	Ile	Ala	Glu	Gly	Thr	Val	Lys	Thr	Ile	Gly
		180						185					190		
Leu	Arg	Ser	Thr	Arg	Ile	Gln	Ser	Asp	Thr	Gly	Glu	Ile	Tyr	Thr	Leu
		195					200					205			
Pro	Asn	Gly	Met	Ile	Ser	Glu	Ile	Val	Asn	Tyr	Ser	Ala	Thr	Asp	Val
	210					215					220				
Ser	Pro	Ile	Val	Met	Ile	Pro	Ile	Ser	Pro	Asn	Glu	Asn	Tyr	Lys	Val
225					230					235					240

Ile Glu Glu Lys Leu Leu Thr Phe Leu Pro Thr Leu Lys Asn Lys Tyr
 245 250 255
 Asp Ile Phe Val Ser Ala Pro Asp Leu Leu Gly Leu Asp Ser Val Asp
 260 265 270
 Gly Asn Glu Met Val Ile Lys Leu Leu Ala His Val Lys Pro Gly Met
 275 280 285
 His Phe Pro Gly Gln Arg Leu Leu Arg Lys Glu Val Ile Gln Tyr Phe
 290 295 300
 Ser Glu Glu Gly Ile His Ile Pro Lys Pro Thr Leu Val Lys Leu Asp
 305 310 315 320
 Lys Glu Leu Asn Lys Lys Glu
 325

<210> 4428

<211> 50

<212> PRT

<213> S.epidermidis

<400> 4428

Leu Asp Ser Ala Ala Cys Thr Glu Pro Pro Pro Ile Asn Asn Ile Asp
 1 5 10 15
 Ala Thr Met Ile Glu Asp Ala Pro Thr Leu Asn Phe Arg Met Leu Tyr
 20 25 30
 Glu Phe Phe Leu Phe Phe Met Phe Lys Ala Pro Leu Ser Phe Leu Tyr
 35 40 45
 His Leu
 50

<210> 4429

<211> 208

<212> PRT

<213> S.epidermidis

<400> 4429

Ile Met Tyr Leu Tyr Val Thr Lys Met Thr Glu Thr Leu Glu Glu Val
 1 5 10 15
 Glu Leu Leu Leu Asn Arg Ser Ser Arg Gln Leu Lys Lys Pro Glu Arg
 20 25 30
 Ile His Tyr Arg Phe Leu Lys Asp Arg Leu Met His Gln Leu Gly Asp
 35 40 45
 Ala Leu Ile Gln Tyr Ala Ile Glu Gln Cys Ala Gly Leu Thr Pro Lys
 50 55 60
 Glu Trp Glu Tyr His Ile Thr Thr Met Gly Lys Val Glu Ile Arg Ser
 65 70 75 80
 Ser Cys His Ile Tyr Val Ser Ile Ser Tyr Ser Tyr Pro Tyr Ile Ile
 85 90 95
 Cys Ile Ile Asp Asn Gln Pro Ile Gly Ile Asp Ile Glu Glu Met Lys
 100 105 110
 Asp Leu Asp Tyr Lys His Leu Ala Lys Asn Phe Thr Lys Asn Glu Phe
 115 120 125
 Asn Gln Val Thr Thr Leu Lys Asp Phe Tyr Glu Ile Trp Thr Lys Lys
 130 135 140
 Glu Ser Tyr Thr Lys Leu Ile Gly Glu Gly Leu Met Asn Gly Leu Asp
 145 150 155 160
 Cys Tyr Asp Val Thr Gln Asn Leu Arg Phe Leu Lys Lys His Val Gln
 165 170 175

Phe Thr Ser Val Asp Tyr Phe Lys Arg Leu Ile Gln Ile Cys His Met
 180 185 190
 Ser Lys His Ser Leu Asn Phe Glu Val Val Pro Leu Thr Gln Leu Leu
 195 200 205

<210> 4430
 <211> 292
 <212> PRT
 <213> S.epidermidis

<400> 4430

Gln Phe Asn Leu Lys Ile Tyr Ile Lys Lys Glu Cys Phe Met Gln Arg
 1 5 10 15
 Gln Val Val Glu Phe Ser Lys Tyr Asn Pro Ser Gly Asn Met Thr Ile
 20 25 30
 Leu Val His Ser Lys His Gln Pro Ser Glu Tyr Ala Ala Ile Ala His
 35 40 45
 Gln Leu Met Ala Thr Thr His Met Cys Cys Glu Gln Val Gly Phe Ile
 50 55 60
 Glu Ser Val Asn Tyr Glu Asn Gly Asp Asn Tyr His Leu Val Met Ser
 65 70 75 80
 Gly Asn Glu Phe Cys Gly Asn Ala Thr Met Ser Tyr Ile His Tyr Leu
 85 90 95
 Lys Glu Arg Leu Leu Ile Gln His Gln Gln Phe Gln Leu Arg Val Ser
 100 105 110
 Gly Cys Ser His Pro Val Glu Cys Lys Val His Ser Gln His Tyr Glu
 115 120 125
 Val Thr Met Pro Lys Val His Gln Val Lys Glu Arg Phe Val Lys Leu
 130 135 140
 Gly Glu Gln Gln Phe Lys Ala Phe Glu Ile Ser Tyr Asp Thr Tyr Ile
 145 150 155 160
 His Tyr Val Met Met Cys Asp Asp Val Asp Leu Ala Ile Lys Gln Cys
 165 170 175
 Val Glu Asp Phe Val Ser Ala Gln Thr Trp His Arg Gln Phe Lys Thr
 180 185 190
 Ile Gly Val Met Leu Phe Gln Gln Asp Lys Gln Phe Ile Tyr Pro Leu
 195 200 205
 Ile His Ile Pro Ala Ile Asp Ser Leu Ile Trp Glu Asn Ser Cys Gly
 210 215 220
 Ser Gly Ala Ala Ser Ile Gly Val Leu Val Asn Tyr Leu Thr Asp His
 225 230 235 240
 Asp Ile Gln Asp Tyr Leu Val Asn Gln Pro Gly Gly Ser Ile Ile Val
 245 250 255
 Ser Ser Arg Lys Ser Gly Gln Asn Glu Tyr Gln Thr Thr Ile Lys Gly
 260 265 270
 Gln Val Ser Thr Val Ala Thr Gly Gln Ala Tyr Ile Glu Gln Glu Thr
 275 280 285
 , Met Thr Gln Ile
 290

<210> 4431
 <211> 503
 <212> PRT
 <213> S.epidermidis

<400> 4431

Ser Val Val Leu Glu Val Leu Glu Lys Asn Phe Ala Asp Asp Lys Glu
 450 455 460
 Ala Trp Glu Pro Val Val Lys Glu Met Val Pro Thr Tyr Gly Arg Ser
 465 470 475 480
 Leu Ile Asn Asp Glu Lys Leu Met Arg Glu Thr Arg Arg Glu Thr Ser
 485 490 495
 Lys Asn Leu His Leu Asn Arg
 500

<210> 4432
 <211> 41
 <212> PRT
 <213> S.epidermidis

<400> 4432
 Leu Thr Tyr Tyr Asp Val His Ser Arg Ser Trp Pro Lys Ile Tyr Leu
 1 5 10 15
 Tyr Gly Val Phe Phe Met Ile Glu Tyr Asp Lys Phe Tyr Phe Lys Ile
 20 25 30
 Lys Val Phe Gln Glu Tyr Ile Asn Gly
 35 40

<210> 4433
 <211> 415
 <212> PRT
 <213> S.epidermidis

<400> 4433
 Asn Lys Cys Tyr Ile Gln Phe Glu Arg Val Ala Lys Asn Phe Ser Lys
 1 5 10 15
 Gly Val Leu Phe Met Lys Lys Lys Leu Ser Tyr Met Ile Thr Ile Met
 20 25 30
 Leu Ala Phe Thr Leu Ser Leu Ala Leu Gly Leu Phe Phe Asn Ser Ala
 35 40 45
 His Ala Asp Ser Leu Pro Gln Lys Asn Gly Ala Asn Gln Lys Thr Thr
 50 55 60
 Lys Val Thr Val Ser Asn Lys Asp Val Pro Asp Ala Val Arg Lys Leu
 65 70 75 80
 Ala Glu Glu Gln Tyr Leu Ser Arg Val Ala Leu Leu Asp Lys Ala Ser
 85 90 95
 Asn His Lys Ala Thr Ser Tyr Thr Leu Gly Glu Pro Phe Lys Ile Tyr
 100 105 110
 Lys Phe Asn Lys Glu Ser Asp Gly Asn Tyr Tyr Tyr Pro Val Leu Asn
 115 120 125
 Lys Lys Gly Asp Val Ile Tyr Val Val Thr Ile Ser Pro Asn Pro Ser
 130 135 140
 Asn Ser Lys Ala Ser Lys Gln Gln Asn Asn Tyr Ser Ile Asn Val Ser
 145 150 155 160
 Pro Phe Leu Ser Lys Ile Leu Asn Gln Tyr Lys Asn Gln Lys Ile Thr
 165 170 175
 Ile Leu Thr Asn Thr Lys Gly Tyr Phe Ala Leu Thr Glu Asp Gly Lys
 180 185 190
 Val Thr Leu Val Leu Lys Thr Pro Arg Asn Asn Glu Lys Thr Tyr Glu
 195 200 205
 Asn Ala Thr Glu Ser Thr Lys Pro Lys Asp Leu Asn Asp Phe Lys Gln
 210 215 220

Thr Ala Ser Val Thr Lys Pro Thr Leu Glu Tyr Gln Ser Thr Arg Asn
 225 230 235 240
 Glu Met Tyr Ala Glu Tyr Val Asn Gln Leu Lys Asn Phe Arg Ile Arg
 245 250 255
 Glu Thr Gln Gly Tyr Asn Ser Trp Cys Ala Gly Tyr Thr Met Ser Ala
 260 265 270
 Leu Leu Asn Ala Thr Tyr Asn Thr Asn Arg Tyr Asn Ala Glu Ser Val
 275 280 285
 Met Arg Tyr Leu His Pro Asn Leu Arg Gly His Asp Phe Gln Phe Thr
 290 295 300
 Gly Leu Thr Ser Asn Glu Met Leu Arg Phe Gly Arg Ser Gln Gly Arg
 305 310 315 320
 Asn Thr Gln Tyr Leu Asn Arg Met Thr Ser Tyr Asn Glu Val Asp Gln
 325 330 335
 Leu Thr Thr Asn Asn Gln Gly Ile Ala Val Leu Gly Lys Arg Val Glu
 340 345 350
 Ser Ser Asp Gly Ile His Ala Gly His Ala Met Ala Val Ala Gly Asn
 355 360 365
 Ala Lys Val Asn Asn Gly Gln Lys Val Ile Leu Ile Trp Asn Pro Trp
 370 375 380
 Asp Asn Gly Leu Met Thr Gln Asp Ala His Ser Asn Ile Ile Pro Val
 385 390 395 400
 Ser Asn Gly Asp His Tyr Glu Trp Tyr Ala Ser Ile Tyr Gly Tyr
 405 410 415

<210> 4434

<211> 298

<212> PRT

<213> S.epidermidis

<400> 4434

Glu Lys Arg Tyr Arg Ile Gly Tyr Phe Lys Lys Val Gln Gly Ile Gly
 1 5 10 15
 Lys Glu Val Val Pro Thr Val Val Ile Asp Leu Val Asp Gln Leu Lys
 20 25 30
 Val Lys Tyr Ser Ile Lys Leu Ile Leu Glu Val Leu Asn Ile Pro Lys
 35 40 45
 Ser Thr Tyr Tyr Arg Trp Lys Asn Lys Thr Tyr Lys Asn Asp Thr Val
 50 55 60
 Thr Gln Lys Val Ile Glu Leu Cys Lys Ala Asn His Tyr Thr Tyr Gly
 65 70 75 80
 Tyr Arg Lys Ile Thr Ala Leu Ile Asn Gln Cys Tyr Thr Ser Pro Ile
 85 90 95
 Asn His Lys Arg Val Gln Arg Met Met Gln Lys His His Leu Asn Cys
 100 105 110
 Arg Val Arg Pro Lys Lys Thr Thr Arg Ile Gly Lys Pro Tyr Tyr Lys
 115 120 125
 Thr Asp Asn Leu Leu Gln Arg Gln Phe Lys Ala Ser Cys Pro Ile Glu
 130 135 140
 Val Leu Thr Thr Asp Ile Thr Tyr Leu Pro Phe Gly His Ser Met Leu
 145 150 155 160
 Tyr Leu Ser Ser Ile Met Asp Ile Tyr Asn Gly Glu Ile Val Ala Tyr
 165 170 175
 Lys Ile Asp Asp Lys Gln Asp Gln Ser Leu Val Asn Asp Thr Leu Asn
 180 185 190
 Gln Ile Asp Ile Pro Glu Gly Cys Ile Leu His Ser Asp Gln Gly Ser

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<210> 4435
<211> 79
<212> PRT
<213> S.epidermidis
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<210> 4436
<211> 261
<212> PRT
<213> S.epidermidis
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<400> 4436																
Glu	Lys	Arg	Tyr	Asp	Val	Met	Lys	Lys	Tyr	Gln	Thr	Tyr	Ile	Ala	Ile	
1				5					10					15		
Gly	Ser	Leu	Leu	Ser	Leu	Met	Val	Val	Leu	Ile	Thr	Tyr	Gly	Leu	Met	
			20					25					30			
Gln	Asp	Thr	Gln	His	Leu	Asn	Pro	Leu	Glu	Ser	Pro	Asn	Gly	Gln	His	
		35					40					45				
Trp	Leu	Gly	Thr	Asp	Gln	Leu	Gly	Arg	Asp	Phe	Leu	Val	Arg	Leu	Ile	
	50					55					60					
Val	Gly	Ser	Leu	Val	Thr	Leu	Ser	Leu	Thr	Gly	Ile	Val	Ile	Leu	Leu	
65					70					75					80	
Ser	Val	Cys	Met	Gly	Leu	Ile	Phe	Gly	Leu	Ile	Ala	Gly	Ile	Glu	Arg	
				85					90					95		
Arg	Trp	Leu	Asp	Gln	Ile	Ile	Met	Phe	Val	Ala	Asp	Met	Leu	Leu	Ala	
			100					105					110			
Ile	Pro	Ser	Phe	Ile	Ile	Ala	Leu	Val	Ile	Leu	Ser	Leu	Val	Ser	Asn	
		115					120					125				
Ser	Met	Ile	Gly	Leu	Ile	Leu	Ala	Leu	Thr	Ile	Gly	Trp	Ile	Gly	Arg	
	130					135					140					
Tyr	Leu	Arg	Tyr	Phe	Arg	Asn	Leu	Thr	Arg	Asp	Ile	Gln	Lys	Arg	Pro	

145 150 155 160
 Phe Val Gln Tyr Ala Arg Leu Ser Gly Asn Ser Thr Phe Lys Thr Thr
 165 170 175
 Val Thr His Val Ile Pro His Leu Leu Ser Ser Ile Phe Ala Leu Val
 180 185 190
 Thr Ala Asp Phe Gly Lys Met Met Leu Ser Ile Ser Gly Leu Ala Phe
 195 200 205
 Leu Gly Leu Gly Ile Lys Pro Pro Thr Pro Glu Leu Gly Thr Ile Leu
 210 215 220
 Phe Asp Gly Lys Ser Tyr Phe Asn Gly Ala Pro Trp Leu Phe Phe Phe
 225 230 235 240
 Pro Gly Val Leu Leu Gly Gly Phe Ala Leu Leu Cys Gln Ile Ile Asn
 245 250 255
 Lys Lys Ile Thr Gln
 260

<210> 4437

<211> 493

<212> PRT

<213> S.epidermidis

<400> 4437

Met Met Asp Phe Trp Ser Ser Lys Arg Gly Lys Met Leu Glu Ile Thr
 1 5 10 15
 Val Leu Val Phe Ile Thr Ile Phe Gly Val Gly Ser Gln Phe Phe Ser
 20 25 30
 Asn Leu Ala Tyr Ser Leu Asn Gln Gly Ile Leu Gln Thr Ser Phe Gly
 35 40 45
 Ile Gly Ser Gln Tyr Leu Ile Ile Pro Ser Val Leu Ala Asn Phe Thr
 50 55 60
 Phe Ala Leu Gly Ile Pro Leu Gly His Thr Leu Thr His Lys Tyr Gly
 65 70 75 80
 Phe Lys Arg Asn Tyr Leu Cys Phe Val Phe Ile Phe Leu Ile Gly Ser
 85 90 95
 Ile Leu Gly Leu Leu Ser Phe Asn Leu Ile Ile Leu Ser Ile Ala Lys
 100 105 110
 Met Ile Gln Ser Phe Ser Ser Gly Val Leu Phe Phe Thr Leu Leu Pro
 115 120 125
 Lys Leu Phe Leu Asn Phe Pro Lys Gln Tyr Arg Asn Val Phe Leu Leu
 130 135 140
 Met Val Ile Val Gly Leu Phe Gly Ser Asn Ala Leu Gly Gly Leu Ser
 145 150 155 160
 Gly Ser Leu Ser Leu Glu Leu Asp Arg Trp His Trp Ile Phe Val Val
 165 170 175
 Asn Ile Ile Ser Ala Ile Leu Cys Leu Ile Leu Gly Asn Val Ile Leu
 180 185 190
 Arg Lys Asn Glu Tyr His Gln Thr Ser Asp Ile His Ile Ser Arg Ser
 195 200 205
 Met Met Ile Thr Leu Val Leu Ser Thr Ile Ser Leu Met Ile Pro Met
 210 215 220
 Ser Leu Leu Thr Gln Lys Gly Tyr His Ser Leu Trp Val Trp Pro Ile
 225 230 235 240
 Leu Leu Ile Ala Ile Phe Phe Ile Val Asn Phe Ile Ile Thr Asn Arg
 245 250 255
 Gln Ala Thr His Pro Ile Val His Phe His Thr Leu Phe Ser Lys Lys
 260 265 270

Pro Phe Val Gly Ala Thr Met Ala Ile Ser Ser His Leu Thr Leu Leu
 275 280 285
 Thr Gly Ile Ala Gly Ile Asn Val Tyr Ile Val Arg Ile Leu Lys Leu
 290 295 300
 Pro Phe Asp Ile Ser Leu His Phe Tyr Phe Phe Phe Phe Val Gly Val
 305 310 315 320
 Ile Ile Thr Gly Ile Leu Lys Met Phe Phe Tyr Ser Ser Val Gly Ala
 325 330 335
 Gly Phe Leu Gly Thr Leu Gly Ser Ser Ala Leu Leu Tyr Val Ser Ile
 340 345 350
 His Trp Ile Ile Leu Gly Asn Thr Ile Asn Ile Pro Leu Leu Tyr Ile
 355 360 365
 Gln Gly Leu Leu Leu Gly Phe Gly Ala Ser Met Thr Leu Val Ser Gly
 370 375 380
 Ser Met Ala Thr Leu Leu Asp Gly Asp Leu Lys Glu Ala Ala Gln Arg
 385 390 395 400
 Ser Gln Thr Met His Thr Ile Arg Asn Phe Ser Ala Ala Met Leu Ile
 405 410 415
 Pro Ile Ile Ala Tyr Thr Ile Lys Asn His Ile Gln Lys Gly Thr Gln
 420 425 430
 Ser Ile Tyr Ala Glu Asn Ile Thr Asp Lys Met Ile Tyr Leu Lys Lys
 435 440 445
 Leu Gln Asp Val Ala Ile Asp Ala Asp His Gln Ile Phe Leu Leu Met
 450 455 460
 Ile Ile Phe Asn Met Val Met Phe Val Ser Ser Ile Ile Gln Met Ile
 465 470 475 480
 Leu Gly Lys Gly Arg Arg Ile Thr Pro Pro Arg Glu Ser
 485 490

<210> 4438

<211> 41

<212> PRT

<213> S.epidermidis

<400> 4438

Asn Pro Pro His Leu Arg Tyr Ala Ser Ala Tyr Gln Leu Met Met Arg
 1 5 10 15
 Phe Leu Phe Leu Val Phe Ile Phe Asn Thr Gln Met Ile Leu Tyr Thr
 20 25 30
 Ser Val Pro Thr Glu Ile Tyr Phe Phe
 35 40

<210> 4439

<211> 43

<212> PRT

<213> S.epidermidis

<400> 4439

Arg Pro Ile His Pro Ile Val Lys Ala Ser Ile Lys Pro Ile Met Glu
 1 5 10 15
 Leu Leu Thr Lys Leu Lys Met Thr Asn Ala Ile Ile Asn Asp Gly Ile
 20 25 30
 Ala Ser Asn Ile Ser Ala Thr Asn Met Met Ile
 35 40

<210> 4440

<211> 477
 <212> PRT
 <213> S.epidermidis

<400> 4440

Lys	Glu	Tyr	His	Ser	Met	Ser	Asn	Ile	Ser	Met	Thr	Thr	Ser	Lys	Arg
1				5					10					15	
Asn	Ala	Ile	Val	Thr	Val	Met	Leu	Ile	Ser	Ala	Phe	Val	Ser	Met	Leu
			20					25					30		
Asn	Gln	Thr	Ile	Leu	Asn	Thr	Ala	Leu	Pro	Ala	Ile	Ile	Lys	Gly	Leu
		35					40					45			
Asn	Ile	Thr	Glu	Thr	Thr	Ala	Gln	Trp	Leu	Ile	Thr	Gly	Phe	Met	Leu
	50					55					60				
Val	Asn	Gly	Ile	Met	Ile	Pro	Leu	Thr	Ala	Phe	Leu	Met	Asp	Lys	Tyr
65					70					75					80
Ser	Thr	Arg	His	Leu	Tyr	Ile	Phe	Ser	Met	Ala	Ile	Phe	Leu	Ile	Gly
			85					90						95	
Ser	Ile	Val	Ala	Ala	Phe	Ser	Pro	Thr	Phe	Thr	Ile	Leu	Met	Ile	Ser
			100					105					110		
Arg	Ile	Ile	Gln	Ala	Ile	Gly	Ala	Gly	Ile	Leu	Leu	Pro	Leu	Met	Gln
		115					120					125			
Phe	Thr	Val	Phe	Thr	Leu	Phe	Pro	Ala	Glu	Gln	Arg	Gly	Phe	Ala	Met
	130					135					140				
Gly	Leu	Ala	Gly	Val	Val	Val	Gln	Ser	Ala	Pro	Ala	Ile	Gly	Pro	Thr
145					150					155					160
Leu	Thr	Gly	Leu	Phe	Val	Asp	Leu	Phe	Ser	Trp	Arg	Met	Pro	Phe	Tyr
			165					170					175		
Leu	Val	Ser	Ala	Ile	Ala	Ala	Val	Ala	Phe	Ile	Leu	Gly	Phe	Phe	Phe
		180						185					190		
Val	Glu	Asn	Asn	Thr	Lys	Thr	Lys	Asp	Ile	Val	Leu	Asp	Lys	Ile	Ser
	195						200					205			
Val	Val	Tyr	Ser	Thr	Phe	Gly	Phe	Gly	Leu	Ile	Leu	Phe	Ala	Phe	Ser
	210					215					220				
Ser	Val	Ser	Thr	Phe	Gly	Ile	Thr	Ser	Leu	Pro	Val	Ile	Val	Thr	Phe
225					230					235					240
Val	Leu	Gly	Ile	Ala	Ile	Ile	Ile	Ile	Phe	Thr	Thr	Arg	Gln	Leu	Lys
			245						250					255	
Leu	Lys	His	Pro	Leu	Leu	Asn	Met	Arg	Val	Phe	Lys	Asn	Lys	Val	Phe
		260						265					270		
Thr	Leu	Ser	Ala	Val	Ser	Ser	Met	Leu	Val	Tyr	Ile	Thr	Met	Val	Ser
	275						280					285			
Pro	Ala	Leu	Leu	Ile	Pro	Ile	Tyr	Ile	Gln	Thr	Gly	Leu	Gly	Gln	Ser
	290					295					300				
Ala	Leu	Leu	Ser	Gly	Val	Val	Val	Leu	Pro	Gly	Ala	Val	Ile	Asn	Gly
305					310					315					320
Leu	Thr	Met	Val	Tyr	Thr	Gly	Lys	Ile	Phe	Asp	Lys	His	Gly	Ile	Lys
			325						330					335	
Val	Leu	Val	Ile	Pro	Gly	Phe	Ile	Leu	Leu	Ile	Ser	Met	Thr	Phe	Leu
		340						345					350		
Tyr	Ser	Phe	Leu	Thr	Thr	Gly	Thr	Pro	Tyr	Trp	Phe	Val	Ile	Leu	Val
	355						360					365			
Tyr	Thr	Ile	Arg	Met	Ile	Ala	Leu	Gly	Leu	Leu	Val	Met	Pro	Leu	Asn
	370					375					380				
Thr	Val	Gly	Leu	Asn	Ala	Leu	Glu	Ser	Asp	Asp	Val	Ser	His	Gly	Thr
385					390					395					400
Ala	Ile	Met	Asn	Ser	Leu	Arg	Ile	Ile	Ala	Gly	Ala	Met	Gly	Thr	Ala

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				405					410					415			
Val	Ser	Val	Thr	Ile	Leu	Ser	Ile	Val	Ala	Lys	Gln	Tyr	Thr	Ala	Ser		
			420						425					430			
His	Ser	Thr	Met	Ser	Lys	Met	Lys	Leu	Thr	Gln	Glu	Ala	Thr	Val	His		
		435					440					445					
Gly	Ile	Asp	Val	Ala	Phe	Ile	Phe	Thr	Thr	Val	Leu	Ile	Ile	Ile	Gly		
	450					455					460						
Phe	Ile	Leu	Ala	Leu	Phe	Ile	Lys	Glu	Glu	Lys	Asn	His					
465					470					475							

<210> 4441
 <211> 47
 <212> PRT
 <213> S.epidermidis

<400> 4441

Asp	Lys	Val	His	Phe	Ile	Asn	Cys	Thr	Leu	Thr	Lys	Leu	Met	Leu	Cys		
1				5					10				15				
Ile	Gln	Asn	Val	Thr	His	Val	Leu	Tyr	Ile	Gln	Leu	His	Phe	Phe	Ser		
		20					25					30					
Tyr	Gln	Asn	Thr	Val	Gln	Gln	Ile	Leu	Gln	Ile	Lys	His	Ile	Gln			
	35						40					45					

<210> 4442
 <211> 50
 <212> PRT
 <213> S.epidermidis

<400> 4442

Ile	Glu	Lys	His	Ile	His	Ile	Ile	Asp	Ile	Ile	Asn	Val	Arg	Leu	Gly		
1			5					10				15					
Val	Leu	Thr	His	Lys	Phe	Tyr	Arg	His	Phe	Asn	Leu	Glu	Leu	Ile	Ser		
		20					25					30					
His	Met	Gly	Ile	Ile	Phe	Lys	Ile	Asn	Ser	Thr	Leu	Ser	His	Phe	Pro		
	35						40					45					
Arg	Ser																
	50																

<210> 4443
 <211> 49
 <212> PRT
 <213> S.epidermidis

<400> 4443

Gly	Ile	Arg	Gln	His	Ile	Phe	Leu	Ile	Pro	Tyr	Pro	Ser	Ile	Thr	Glu		
1			5					10				15					
Phe	Asn	Tyr	Leu	Leu	Ile	Leu	Ile	Ser	Leu	Val	Asn	Asn	Tyr	Arg	Pro		
	20						25					30					
Val	Leu	Leu	His	Val	Leu	Gln	Leu	Val	Leu	Leu	Lys	Ile	Ser	Tyr	Thr		
	35					40						45					
Arg																	

<210> 4444
 <211> 464
 <212> PRT

1642: 4441-4444

<213> S.epidermidis

<400> 4444

Cys	Glu	Leu	His	Met	Leu	Lys	Val	Thr	Phe	Asn	Leu	Arg	Asp	Gly	Thr
1				5					10					15	
Phe	Thr	Asp	Ile	Pro	Asp	Asp	Ala	His	Tyr	Phe	Leu	Ile	Glu	Asp	Tyr
			20					25					30		
Asp	Lys	Leu	Thr	Pro	Ser	Gln	Gln	Thr	Leu	Leu	Lys	Arg	Tyr	Ile	Ile
		35					40					45			
Lys	His	Gln	Leu	Asp	Ile	Ser	Leu	Gln	His	Ala	Ile	Leu	Ser	Ser	Pro
	50					55					60				
Leu	His	Ser	Leu	Asn	Met	Ile	Lys	Lys	Leu	Glu	Thr	Phe	Val	Lys	Glu
65					70					75					80
Ser	Lys	Ala	Tyr	His	Pro	Gln	Phe	His	Asn	Ile	Ile	Cys	Gly	Trp	Cys
				85					90					95	
Phe	Ile	Val	Leu	Met	Phe	Ala	Leu	Pro	Ile	Tyr	Leu	Ser	Tyr	His	Val
			100					105						110	
Ser	Asp	Gly	Leu	Gln	Tyr	Tyr	Val	Ser	His	Trp	Leu	Thr	Lys	Leu	Ser
		115					120						125		
Gln	Ile	Ser	Leu	Phe	Gln	Glu	Asn	Lys	Leu	Gln	His	Ile	Leu	Phe	Gly
	130					135					140				
His	Tyr	Gly	Val	Ile	Ser	Leu	Gly	Thr	Tyr	Ser	Phe	Val	Trp	Ala	Leu
145					150					155					160
Pro	Val	Val	Phe	Met	Ile	Ser	Leu	Ser	Thr	Ala	Leu	Ile	Asp	Ile	Thr
				165					170					175	
His	Leu	Lys	His	Tyr	Ile	Val	Trp	Ser	Ile	Glu	Pro	Thr	Met	Met	Arg
			180					185					190		
Leu	Gly	Leu	His	Gly	Ser	Asp	Ile	Ile	Pro	Leu	Leu	Glu	Gly	Phe	Gly
	195						200					205			
Cys	Asn	Ala	Ala	Ala	Ile	Thr	Gln	Ala	Thr	His	Gln	Cys	His	Arg	Cys
	210					215					220				
Thr	Lys	Val	Gln	Cys	Met	Ser	Leu	Val	Ser	Phe	Gly	Thr	Ala	Cys	Ser
225					230					235					240
Tyr	Gln	Ile	Gly	Ala	Thr	Leu	Ser	Ile	Phe	Asn	Ala	Ser	His	Arg	Ser
				245					250					255	
Trp	Leu	Phe	Leu	Pro	Tyr	Ile	Gly	Met	Val	Phe	Leu	Gly	Gly	Ile	Ile
			260				265						270		
His	Asn	Lys	Leu	Trp	Tyr	Ser	His	Gln	Thr	Pro	Lys	Thr	Thr	Pro	Ser
		275					280					285			
Val	Phe	Gln	Arg	Gln	Leu	Val	Arg	Trp	Pro	Lys	Pro	Asn	Leu	Leu	Leu
	290					295					300				
Lys	Ala	Ala	Trp	Lys	Ser	Ile	Gln	Met	Phe	Ile	Val	Gln	Ala	Leu	Pro
305					310					315					320
Ile	Phe	Ile	Gly	Ile	Cys	Leu	Ile	Val	Ser	Leu	Leu	Ser	Leu	Thr	Pro
				325					330					335	
Ile	Leu	Thr	Phe	Ile	Ser	Asn	Ala	Phe	Ile	Pro	Leu	Leu	Trp	Leu	Leu
			340					345					350		
Asp	Val	Pro	Thr	Gln	Leu	Ala	Pro	Gly	Ile	Leu	Phe	Ser	Met	Ile	Arg
		355					360					365			
Lys	Asp	Gly	Met	Leu	Leu	Phe	Asn	Met	Asn	Gly	Gly	Thr	Leu	Ile	Gln
	370					375					380				
Arg	Leu	Ser	Ala	Phe	Gln	Leu	Leu	Leu	Leu	Val	Phe	Phe	Ser	Ser	Thr
385					390					395					400
Phe	Thr	Ala	Cys	Ser	Val	Thr	Met	Thr	Met	Leu	Met	Arg	Arg	Leu	Gly
				405					410					415	
Ser	Ile	Leu	Gly	Ile	Lys	Met	Ile	Met	Lys	Gln	Met	Val	Ser	Ser	Thr

			420					425					430				
Ile	Cys	Val	Thr	Ile	Leu	Val	Ile	Ala	Met	Leu	Ser	Ile	Thr	Lys	Ile		
		435					440					445					
Ser	Asp	Leu	Gly	Val	Met	Leu	Trp	Lys	Ser	Leu	Leu	Ser	Val	Val	Phe		
	450					455					460						

<210> 4445
 <211> 220
 <212> PRT
 <213> S.epidermidis

<400> 4445

Leu	Arg	Leu	His	Ile	Gly	Asp	Asn	Leu	Met	Leu	Lys	Ile	Glu	Arg	Leu		
1			5					10					15				
Thr	Lys	Tyr	Ile	Asp	Thr	Gln	Leu	Ile	Phe	Lys	Glu	Ile	Ser	Cys	Thr		
		20					25					30					
Ile	Asn	Asp	Gln	His	Leu	Leu	Ile	Ser	Gly	Glu	Ser	Gly	Cys	Gly	Lys		
	35					40						45					
Ser	Thr	Leu	Ala	Lys	Ile	Ile	Ala	Gly	Leu	Asp	Thr	Asp	Tyr	Gln	Gly		
	50				55					60							
Glu	Leu	Tyr	Leu	Asn	Gly	Arg	Leu	Arg	Glu	Ser	Tyr	Thr	Ser	Lys	Glu		
65				70					75					80			
Trp	Met	Lys	His	Ile	Gln	Tyr	Val	Pro	Gln	Tyr	Gln	Arg	Asp	Thr	Leu		
			85					90					95				
Asn	Gln	Arg	Lys	Thr	Val	Leu	Ala	Thr	Leu	Leu	Glu	Pro	Leu	Lys	Asn		
		100					105						110				
Tyr	Lys	Val	Asn	Lys	Gln	Arg	Tyr	Thr	Ser	Ser	Ile	Glu	Ala	Val	Leu		
	115						120					125					
Asp	Gln	Cys	Asn	Leu	Pro	His	Asp	Ile	Leu	Asn	His	Lys	Val	Ser	Thr		
	130					135					140						
Leu	Ser	Gly	Gly	Gln	Phe	Gln	Arg	Val	Trp	Ile	Ala	Lys	Ala	Leu	Ile		
145				150					155					160			
Leu	Glu	Pro	Glu	Ile	Leu	Ile	Leu	Asp	Glu	Ala	Thr	Thr	Asn	Leu	Asp		
			165					170					175				
Val	Ile	Asn	Glu	Glu	Ala	Ile	Leu	Gln	Met	Leu	Ile	Ser	Leu	Lys	Met		
		180					185						190				
Thr	Gln	Leu	Ile	Ile	Ile	Ser	His	Asp	Thr	Tyr	Val	Leu	Ser	Gln	Phe		
	195					200						205					
Glu	Gly	Ile	Gln	Leu	Gln	Leu	Asn	Lys	Leu	Asn	Asn						
	210					215					220						

<210> 4446
 <211> 127
 <212> PRT
 <213> S.epidermidis

<400> 4446

Thr	Met	Lys	His	His	Arg	Cys	Leu	Leu	His	Cys	Lys	Gln	Lys	Lys	Glu		
1			5					10					15				
Ala	Met	Gln	Lys	His	Leu	Asn	Leu	Ser	Gln	Arg	Arg	Gln	Lys	Lys	Glu		
		20					25					30					
Ala	Met	Gln	Lys	His	Leu	Asn	Leu	Ser	Gln	Arg	Arg	Gln	Lys	Lys	Glu		
	35					40						45					
Ala	Met	Gln	Lys	His	Leu	Asn	Leu	Ser	Gln	Arg	Arg	Gln	Lys	Lys	Glu		
	50				55						60						
Ala	Met	Gln	Lys	His	Leu	Asn	Leu	Ser	Gln	Arg	Arg	Gln	Lys	Lys	Glu		

65					70					75					80
Ala	Met	Gln	Lys	His	Leu	Asn	Leu	Ser	Gln	Arg	Arg	Gln	Lys	Lys	Glu
				85					90					95	
Ala	Met	Gln	Lys	His	Arg	Met	Phe	Gln	Leu	Ser	Lys	Leu	Ile	Gln	Ile
			100					105					110		
Met	Ile	His	Lys	His	Asn	Phe	Gln	Lys	Pro	Leu	Gln	Glu	Met	Thr	
		115					120					125			

<210> 4447
 <211> 281
 <212> PRT
 <213> S.epidermidis

<400> 4447

Leu	Ser	Phe	Lys	Asn	Asp	Thr	Gly	Gly	Met	Lys	Met	Thr	Asn	Arg	Leu
1				5					10					15	
Ile	Leu	Phe	Asp	Phe	Asp	Glu	Thr	Tyr	Tyr	Lys	His	Arg	Thr	Asn	Gln
			20					25					30		
Ala	Asp	Ile	Pro	Tyr	Leu	Lys	Glu	Met	Glu	Ser	Leu	Leu	Gln	Asn	Ile
		35					40					45			
Thr	Ala	Lys	Asn	Asn	Val	Ile	Thr	Ala	Ile	Leu	Thr	Gly	Ser	Thr	Ile
	50				55						60				
Glu	Ser	Val	Leu	Lys	Lys	Met	Ser	Lys	Val	Asn	Met	Ser	Tyr	Lys	Pro
65					70					75					80
Gln	His	Ile	Phe	Ser	Asp	Leu	Ser	Ser	Lys	Met	Phe	Thr	Trp	Asn	Asn
				85					90					95	
Cys	Glu	Tyr	Ile	Glu	Ser	Asp	Glu	Tyr	Lys	Asn	Glu	Val	Leu	Ile	Glu
			100					105					110		
Pro	Phe	Leu	Leu	Glu	Asp	Ile	Leu	Asp	Ile	Leu	Lys	His	Val	Ser	Ser
		115					120						125		
Lys	His	Lys	Val	Glu	Phe	Ile	Pro	Gln	Arg	Ile	Phe	Arg	Glu	Asn	Glu
	130					135						140			
Thr	Leu	Tyr	Asn	Phe	Tyr	Leu	Tyr	Ser	Ser	Gly	Asp	Thr	His	Leu	Asp
145					150					155					160
Lys	Thr	Ile	Leu	Glu	Asp	Leu	Ser	Gln	Tyr	Ser	Lys	Thr	Arg	Asp	Tyr
				165					170					175	
Thr	Met	Thr	Phe	Asn	Arg	Cys	Asn	Pro	Leu	Ala	Gly	Asp	Pro	Glu	Asn
			180					185					190		
Ala	Tyr	Asp	Ile	Asn	Phe	Thr	Pro	Lys	Asn	Ala	Gly	Lys	Leu	Tyr	Ala
		195					200					205			
Thr	Lys	Phe	Leu	Met	Asn	Lys	Tyr	Gly	Val	Pro	Lys	Glu	Leu	Ile	Ile
	210					215						220			
Gly	Phe	Gly	Asp	Ser	Gly	Asn	Asp	Glu	Ala	Phe	Leu	Ser	Tyr	Leu	Asp
225					230					235					240
His	Ala	Met	Ile	Met	Ser	Asn	Ser	Gln	Asp	Glu	Glu	Met	Lys	Ser	Lys
				245					250					255	
Phe	Lys	Asn	Thr	Lys	Tyr	Pro	Tyr	Tyr	Lys	Gly	Ile	Tyr	Thr	His	Val
		260						265					270		
Arg	Glu	Phe	Ile	Glu	Tyr	Glu	Asn	Val							
		275					280								

<210> 4448
 <211> 304
 <212> PRT
 <213> S.epidermidis

<400> 4448

Cys Asn Ile Lys Ser Ala Phe Lys Gly Gly Asn Glu Met Ile Val Leu
 1 5 10 15
 Arg Arg Leu Phe Gln Asp Arg Gly Ala Ile Phe Ala Ile Ala Ile Ile
 20 25 30
 Thr Ile Tyr Val Val Leu Gly Val Leu Ala Pro Leu Ile Thr Phe Tyr
 35 40 45
 Glu Pro Asn His Ile Asp Thr Ala Asn Lys Phe Ala Gly Ile Ser Trp
 50 55 60
 Ser His Trp Leu Gly Thr Asp His Leu Gly Arg Asp Val Leu Thr Arg
 65 70 75 80
 Ile Ile Tyr Ala Ile Arg Pro Ser Leu Leu Tyr Val Phe Val Ala Leu
 85 90 95
 Ile Ile Ser Val Ile Gly Ala Ile Leu Gly Phe Ile Ser Gly Tyr
 100 105 110
 Phe Pro Gly Tyr Ile Asp Ala Ile Ile Met Arg Ile Cys Asp Val Met
 115 120 125
 Leu Ala Phe Pro Ser Tyr Val Val Thr Leu Ala Leu Ile Thr Leu Phe
 130 135 140
 Gly Met Gly Val Glu Asn Ile Ile Ile Ala Phe Ile Leu Thr Arg Trp
 145 150 155 160
 Ala Trp Phe Cys Arg Val Ile Arg Thr Ser Val Met Gln Tyr Ile Glu
 165 170 175
 Ala Asp His Val Lys Phe Ala Lys Val Ile Gly Met Asn Asp Leu Thr
 180 185 190
 Ile Ile Arg Lys His Ile Leu Pro Leu Thr Phe Thr Asp Ile Ala Ile
 195 200 205
 Ile Ala Ser Ser Ser Met Cys Ser Met Ile Leu Gln Met Ser Gly Phe
 210 215 220
 Ser Phe Leu Gly Leu Gly Val Lys Ala Pro Thr Ala Glu Trp Gly Met
 225 230 235 240
 Met Leu Asn Glu Ala Arg Lys Val Met Phe Thr His Pro Gly Met Met
 245 250 255
 Met Thr Thr Gly Val Ala Ile Val Ile Ile Val Met Ala Phe Asn Phe
 260 265 270
 Leu Ser Asp Ala Leu Gln Met Ala Ile Asp Pro Arg Met Ser Ala Lys
 275 280 285
 Glu Lys Arg Leu Ala Leu Lys Lys Gly Val Lys Ala Arg Asp Thr Ala
 290 295 300

<210> 4449

<211> 474

<212> PRT

<213> S.epidermidis

<400> 4449

Lys His Cys Leu Ile Ile His Leu Lys Gln Leu Thr Lys His Asn Gly
 1 5 10 15
 Asp Val Lys Asn Tyr Lys His Asp Arg Ser Arg Phe Leu Ile Leu His
 20 25 30
 Phe Ile Val Lys Trp His Gln Lys Leu Val Leu Asn Met Ser Lys Ile
 35 40 45
 Leu Met Val Gly Ser Gly Pro Val Ala Ile Gln Leu Ala Arg Leu Cys
 50 55 60
 Asn Leu His Gly Glu His Met Val Asp Met Val Ser Arg Val His Ala
 65 70 75 80

<400> 4450

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Tyr Lys Tyr Lys Arg Cys Phe Gly Gly Ile Leu Met Ser Lys Phe Ile
1      5      10      15
Tyr Gln Ser Pro Gly Arg Tyr Val Gln Gly Lys Gly Ile Val Ser Ser
20      25      30
Ile Ala Glu Glu Thr Glu Arg Leu Gly Ser His Ala Leu Ile Ile Ala
35      40      45
Asp Glu Val Val Trp Asn Ile Thr Glu Glu Lys Ile Lys Glu Ser Phe
50      55      60
Ser Ala Asn Asn Asn Val Asp Phe Glu Tyr Glu Val Phe Lys Gly Glu
65      70      75      80
Ser Ser Glu Glu Glu Ile Gln Arg Ile Val Lys Gln Tyr Lys Glu Lys
85      90      95
Asn Ile Asp Val Val Ile Gly Leu Gly Gly Lys Ala Leu Asp Thr
100     105     110
Gly Lys Ala Val Ala Phe Glu Leu Lys Ala Ser Val Ile Asp Phe Ala
115     120     125
Ser Thr Ala Ser Met Asp Ala Pro Thr Ala Ala Val Ser Val Ile Tyr
130     135     140
Asn Glu Asp Gly Ser Phe Ser Gly Tyr Glu Phe Tyr Pro Lys Asn Pro
145     150     155     160
Asp Thr Val Ile Val Asp Ser Glu Ile Val Ala Gln Ala Pro Val Arg
165     170     175
Leu Phe Ala Ser Gly Met Ser Asp Gly Leu Ala Thr Leu Ile Glu Val
180     185     190
Glu Ser Thr Leu Arg Arg Gln Gly Gln Asn Met Phe His Gly Lys Pro
195     200     205
Thr Leu Ala Ser Leu Ala Ile Ala Gln Lys Cys Glu Glu Val Ile Phe
210     215     220
Glu Tyr Gly Tyr Ser Ala Tyr Thr Ser Val Glu Lys His Ile Val Thr
225     230     235     240
Pro Gln Val Asp Ala Val Ile Glu Ala Asn Thr Leu Leu Ser Gly Leu
245     250     255
Gly Phe Glu Asn Gly Gly Leu Ala Gly Ala His Ala Ile His Asn Gly
260     265     270
Phe Thr Ala Leu Glu Gly Asp Ile His His Leu Thr His Gly Glu Lys
275     280     285
Val Ala Tyr Gly Ile Leu Val Gln Leu Val Leu Glu Asn Ala Pro Thr
290     295     300
Glu Lys Phe Met Lys Tyr Lys Thr Phe Phe Asp Asn Ile Asn Met Pro
305     310     315     320
Thr Thr Leu Glu Gly Leu His Ile Glu Asn Thr Ser Tyr Glu Glu Leu
325     330     335
Val Gln Val Gly Glu Arg Ala Leu Thr Pro Asn Asp Thr Phe Ala Asn
340     345     350
Leu Ser Asp Lys Ile Thr Ala Asp Glu Ile Ala Asp Ala Ile Leu Thr
355     360     365
Val Asn Asp Leu Ser Lys Ser Gln Phe Asn
370     375

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<210> 4451

<211> 55

<212> PRT

<213> S.epidermidis

<400> 4451

Gly Arg Asp Asn Leu Met Glu His Val Ser Lys Leu Gly Glu Ala Ile
 1 5 10 15
 Val Asp Thr Val Thr Ala Ala Gln Ala Glu Asp Gly Ala Glu Leu Ala
 20 25 30
 Lys Ser Ile Val Asn Ile Val Ala Asn Ala Gly Gly Ile Ile Gln Asp
 35 40 45
 Ile Ala His Ala Phe Gly Tyr
 50 55

<210> 4452

<211> 405

<212> PRT

<213> S.epidermidis

<400> 4452

Thr Thr Ile Asn Leu Arg Ser Asp Asn Met Lys Gly Ala Met Ser Trp
 1 5 10 15
 Pro Phe Leu Arg Leu Tyr Ile Leu Thr Leu Met Phe Phe Ser Ala Asn
 20 25 30
 Ala Ile Leu Asn Val Phe Ile Pro Leu Arg Gly His Asp Leu Gly Ala
 35 40 45
 Thr Asn Thr Val Ile Gly Ile Val Met Gly Ala Tyr Met Leu Thr Ala
 50 55 60
 Met Leu Phe Arg Pro Trp Ala Gly Gln Ile Ile Ala Arg Ile Gly Pro
 65 70 75 80
 Ile Lys Val Leu Arg Ile Ile Leu Leu Ile Asn Ala Met Ala Leu Val
 85 90 95
 Leu Tyr Gly Phe Thr Gly Leu Glu Gly Tyr Leu Ile Ala Arg Ile Met
 100 105 110
 Gln Gly Val Cys Thr Ala Phe Phe Ser Met Ser Leu Gln Leu Gly Ile
 115 120 125
 Ile Asp Ala Leu Pro Glu Lys Tyr Arg Ser Glu Gly Val Ser Leu Tyr
 130 135 140
 Ser Leu Phe Ser Thr Ile Pro Asn Leu Leu Gly Pro Leu Ile Ala Val
 145 150 155 160
 Gly Ile Trp His Val Glu Asn Met Ser Ile Phe Ala Ile Val Met Ile
 165 170 175
 Phe Ile Ala Val Thr Thr Thr Leu Phe Gly Tyr Arg Thr Thr Phe Ala
 180 185 190
 Asn Thr Gln Lys Glu Val Ser Pro Lys Asp Glu Val Leu Pro Phe Asn
 195 200 205
 Ala Met Thr Val Tyr Val Gln Phe Phe Lys Asn Lys Ala Leu Phe Cys
 210 215 220
 Ser Gly Met Ile Met Ile Leu Ser Ser Ile Val Phe Gly Ala Met Ser
 225 230 235 240
 Thr Phe Ile Pro Leu Tyr Thr Val Arg Glu Gly Phe Ala Asn Ala Gly
 245 250 255
 Ile Phe Leu Thr Ile Gln Ala Ile Thr Val Val Ile Ala Arg Phe Tyr
 260 265 270
 Leu Arg Lys Tyr Val Pro Ser Asp Gly Leu Trp His His Arg Phe Met
 275 280 285
 Met Ile Val Leu Thr Leu Leu Met Val Ala Ser Val Ile Val Ala Phe
 290 295 300
 Gly Pro His Ile Val Ser Ile Phe Val Tyr Ile Ser Ala Ile Phe Ile
 305 310 315 320
 Gly Ile Thr Gln Ala Leu Val Tyr Pro Thr Leu Thr Thr Tyr Leu Ser

				325					330					335			
Phe	Val	Leu	Pro	Lys	Ile	Gly	Arg	Asn	Met	Leu	Leu	Gly	Leu	Phe	Ile		
			340					345					350				
Ala	Cys	Ala	Asp	Leu	Gly	Ile	Ser	Leu	Gly	Gly	Val	Leu	Met	Gly	Pro		
		355					360					365					
Ile	Ser	Asp	Thr	Val	Gly	Phe	Lys	Trp	Met	Tyr	Ile	Leu	Cys	Ala	Leu		
	370					375					380						
Leu	Val	Thr	Ile	Ala	Met	Thr	Leu	Ser	Lys	Ile	Arg	Gln	Arg	Gln	Ser		
385					390					395					400		
Val	Ser	Lys	Ala	Ser													
				405													

<210> 4453

<211> 341

<212> PRT

<213> S.epidermidis

<400> 4453

Phe	Ile	His	Lys	Glu	Leu	Leu	Leu	Met	Lys	Asn	Leu	Arg	Asn	Arg	Ser		
1				5					10					15			
Phe	Leu	Thr	Leu	Leu	Asp	Phe	Ser	Arg	Gln	Glu	Val	Glu	Phe	Leu	Leu		
			20					25					30				
Thr	Leu	Ser	Glu	Asp	Leu	Lys	Arg	Ala	Lys	Tyr	Ile	Gly	Thr	Glu	Lys		
		35					40					45					
Pro	Met	Leu	Lys	Asn	Lys	Asn	Ile	Ala	Leu	Leu	Phe	Glu	Lys	Asp	Ser		
	50					55					60						
Thr	Arg	Thr	Arg	Cys	Ala	Phe	Glu	Val	Ala	Ala	His	Asp	Gln	Gly	Ala		
65				70					75						80		
His	Val	Thr	Tyr	Leu	Gly	Pro	Thr	Gly	Ser	Gln	Met	Gly	Lys	Lys	Glu		
			85					90						95			
Thr	Ala	Lys	Asp	Thr	Ala	Arg	Val	Leu	Gly	Gly	Met	Tyr	Asp	Gly	Ile		
			100					105						110			
Glu	Tyr	Arg	Gly	Phe	Ser	Gln	Arg	Thr	Val	Glu	Thr	Leu	Ala	Gln	Tyr		
	115						120					125					
Ser	Gly	Val	Pro	Val	Trp	Asn	Gly	Leu	Thr	Asp	Glu	Asp	His	Pro	Thr		
	130					135					140						
Gln	Val	Leu	Ala	Asp	Phe	Leu	Thr	Ala	Lys	Glu	Val	Leu	Lys	Lys	Glu		
145				150						155					160		
Tyr	Ala	Asp	Ile	Asn	Phe	Thr	Tyr	Val	Gly	Asp	Gly	Arg	Asn	Asn	Val		
			165					170						175			
Ala	Asn	Ala	Leu	Met	Gln	Gly	Ala	Ala	Ile	Met	Gly	Met	Asn	Phe	His		
			180					185					190				
Leu	Val	Cys	Pro	Lys	Glu	Leu	Asn	Pro	Thr	Glu	Glu	Leu	Leu	Asn	Arg		
	195						200					205					
Cys	Glu	Arg	Ile	Ala	Thr	Glu	Asn	Gly	Gly	Asn	Ile	Leu	Ile	Thr	Asp		
	210					215					220						
Asp	Ile	Asp	Lys	Gly	Val	Lys	Asp	Ser	Asp	Val	Ile	Tyr	Thr	Asp	Val		
225					230					235					240		
Trp	Val	Ser	Met	Gly	Glu	Pro	Asp	Glu	Val	Trp	Gln	Glu	Arg	Leu	Lys		
			245						250						255		
Leu	Leu	Lys	Pro	Tyr	Gln	Val	Asn	Gln	Ala	Leu	Leu	Glu	Lys	Thr	Gly		
			260					265						270			
Asn	Pro	Asn	Val	Ile	Phe	Glu	His	Cys	Leu	Pro	Ser	Phe	His	Asn	Ala		
		275					280					285					
Glu	Thr	Lys	Ile	Gly	Gln	Gln	Ile	Tyr	Glu	Lys	Tyr	Gly	Ile	Ser	Glu		
	290					295					300						

1651

Met Glu Val Thr Asp Asp Val Phe Glu Ser Lys Ala Ser Val Val Phe
 305 310 315 320
 Gln Glu Ala Glu Asn Arg Met His Thr Ile Lys Ala Val Met Val Ala
 325 330 335
 Thr Leu Gly Glu Phe
 340

<210> 4454
 <211> 42
 <212> PRT
 <213> S.epidermidis

<400> 4454
 Asn Asp Ser Lys Thr Phe Tyr Thr Gln Lys Asn Leu Leu Phe Gln Gln
 1 5 10 15
 Phe His Asn Ala Cys Ser Ala Gly Leu Lys Asp Val Met Ile Leu Lys
 20 25 30
 Tyr Asp Asn Asp Leu Asp Asn Gln Leu Ser
 35 40

<210> 4455
 <211> 255
 <212> PRT
 <213> S.epidermidis

<400> 4455
 Gly Gly Ser Lys Met Leu Lys Gly His Leu His Ser Val Glu Ser Met
 1 5 10 15
 Gly Thr Val Asp Gly Pro Gly Leu Arg Tyr Ile Leu Phe Thr Gln Gly
 20 25 30
 Cys Leu Leu Arg Cys Leu Tyr Cys His Asn Pro Asp Thr Trp Lys Ile
 35 40 45
 Asn Glu Pro Ser Arg Glu Val Thr Val Asp Glu Met Val Asn Glu Ile
 50 55 60
 Leu Pro Tyr Lys Pro Tyr Phe Glu Ala Ser Gly Gly Gly Val Thr Val
 65 70 75 80
 Ser Gly Gly Glu Pro Leu Leu Gln Met Pro Phe Leu Glu Gln Leu Phe
 85 90 95
 Lys Glu Leu Lys Ala Asn Gly Val His Thr Cys Ile Asp Thr Ser Ala
 100 105 110
 Gly Cys Val Asn Asp Thr Pro Ala Phe Asn Arg His Phe Asp Glu Leu
 115 120 125
 Gln Lys His Thr Asp Leu Ile Leu Leu Asp Ile Lys His Ile Asp Asn
 130 135 140
 Asp Lys His Ile Lys Leu Thr Gly Lys Pro Asn Thr His Ile Leu Lys
 145 150 155 160
 Phe Ala Arg Lys Leu Ser Asp Met Lys Gln Pro Val Trp Ile Arg His
 165 170 175
 Val Leu Val Pro Gly Ile Ser Asp Asp Lys Glu Asp Leu Ile Lys Leu
 180 185 190
 Gly Glu Phe Ile Asn Ser Leu Asp Asn Val Glu Lys Phe Glu Ile Leu
 195 200 205
 Pro Tyr His Gln Leu Gly Val His Lys Trp Lys Asn Leu Gly Ile Pro
 210 215 220
 Tyr Gln Leu Glu Asn Val Glu Pro Pro Asp Asp Glu Ala Val Lys Glu
 225 230 235 240

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Ala Tyr Arg Tyr Val Asn Phe Asn Gly Lys Ile Pro Val Thr Leu
 245 250 255

<210> 4456

<211> 70

<212> PRT

<213> S.epidermidis

<400> 4456

Phe Val Leu Lys Lys Gln Cys Tyr Ser Ile Asp Asn Leu Ile Arg Arg
 1 5 10 15
 Arg Glu Tyr Asn Val Glu His Val Ser Lys Leu Ala Glu Ala Ile Ala
 20 25 30
 Asn Thr Val Ser Ala Ala Gln Ala Glu Asp Gly Ala Glu Leu Ala Lys
 35 40 45
 Ser Ile Val Asn Ile Val Ala Asn Ala Gly Gly Ile Ile Gln Asp Ile
 50 55 60
 Ala His Ala Phe Gly Tyr
 65 70

<210> 4457

<211> 45

<212> PRT

<213> S.epidermidis

<400> 4457

Pro Glu Ile Asn Pro Ser Ile Ala Pro Ile Thr Thr Glu Ile Ile Asn
 1 5 10 15
 Ala Thr Asn Thr Tyr Asn Lys Leu Gly Leu Met Ala Tyr Ile Ile Arg
 20 25 30
 Val Asn Thr Ser Arg Pro Lys Trp Ser Val Pro Asn Gln
 35 40 45

<210> 4458

<211> 42

<212> PRT

<213> S.epidermidis

<400> 4458

Arg Val Val Lys Ile Met Ile Met Ala Ile Pro Ser Thr Asn Val Thr
 1 5 10 15
 Met Thr Gly Arg Glu Val Ile Pro Asn Val Leu Thr Leu Leu Asn Ala
 20 25 30
 Asn Lys Ile Lys Pro Lys Pro Lys Val Glu
 35 40

<210> 4459

<211> 56

<212> PRT

<213> S.epidermidis

<400> 4459

Val Ala Gln Asn Asp Leu Glu Ile Ser Ser Ser Ser Glu Pro Arg Gly
 1 5 10 15
 Asn Ile Lys Leu Ile Ile Ile Thr Tyr Ile Phe His Ile Lys Tyr Ile
 20 25 30

Val Ile Asn Lys Asn Asn Gln Lys Ile Ile Tyr Ile Gly Ile Val Ile
 35 40 45
 Arg Leu Ser Tyr Val Asn Leu Tyr
 50 55

<210> 4460
 <211> 77
 <212> PRT
 <213> S.epidermidis

<400> 4460
 Ile His Lys Asn Thr Glu Thr Phe Asp Asp Val Ser Asp Ile Tyr His
 1 5 10 15
 Ile Ser Leu Val Asp Leu Ser Thr Cys Leu Phe Lys Ser Gln Leu Thr
 20 25 30
 Ser Val Ile Ile Tyr Thr Thr Leu Phe Asn Asn Lys Thr Leu Phe Val
 35 40 45
 Lys Leu Asn Pro His Val Val Ile Tyr Asp Val Gln Leu Tyr Leu Tyr
 50 55 60
 Asp Ile Lys Pro Glu Asn Phe Ser Thr Thr Val Met Pro
 65 70 75

<210> 4461
 <211> 454
 <212> PRT
 <213> S.epidermidis

<400> 4461
 Leu Met Met Lys Asn Lys Leu Thr Leu Lys Glu Asn Leu Phe Ile Gly
 1 5 10 15
 Ser Met Leu Phe Gly Leu Phe Phe Gly Ala Gly Asn Leu Ile Phe Pro
 20 25 30
 Ile His Leu Gly Gln Thr Ala Gly Ser Asn Val Trp Thr Ala Asn Leu
 35 40 45
 Gly Phe Leu Ile Thr Ala Ile Gly Leu Pro Phe Leu Gly Ile Ile Ala
 50 55 60
 Ile Gly Val Ser Lys Thr Asn Gly Val Phe Glu Ile Ser Ser Arg Ile
 65 70 75 80
 Ser Lys Ile Tyr Gly Tyr Leu Phe Thr Ile Gly Leu Tyr Leu Val Ile
 85 90 95
 Gly Pro Phe Phe Ala Leu Pro Arg Leu Ala Thr Thr Ser Phe Glu Ile
 100 105 110
 Ala Phe Ser Pro Phe Ile Ser Ser Gly Thr Ala Gln Ala Leu Leu Pro
 115 120 125
 Ile Phe Ser Ile Leu Phe Phe Gly Val Ala Trp Leu Phe Ser Arg Lys
 130 135 140
 Pro Ser Lys Ile Leu Asp Tyr Ile Gly Lys Phe Leu Asn Pro Val Phe
 145 150 155 160
 Leu Ile Leu Leu Gly Ile Val Val Val Leu Ala Phe Ile Arg Pro Met
 165 170 175
 Gly Gly Ile Ser His Ala Pro Val Ser Ala Asp Tyr Ser Asn Ser Val
 180 185 190
 Leu Leu Lys Gly Phe Ile Asp Gly Tyr Asn Thr Leu Asp Ala Leu Ala
 195 200 205
 Ser Leu Ala Phe Gly Ile Ile Ile Val Thr Thr Ile Lys Lys Leu Gly
 210 215 220

```

Ile Thr Asn Pro Asn Thr Ile Ala Lys Glu Thr Leu Lys Ser Gly Thr
225                230                235                240
Ile Ser Ile Ile Ala Met Gly Val Ile Tyr Thr Leu Leu Ala Leu Met
                245                250                255
Gly Thr Met Ser Leu Gly Arg Phe Lys Val Ser Glu Asn Gly Gly Ile
                260                265                270
Ala Leu Ala Gln Ile Ala Gln His Tyr Leu Gly Asp Tyr Gly Ile Ile
                275                280                285
Ile Leu Ser Leu Ile Ile Ile Val Ala Cys Leu Lys Thr Ala Ile Gly
                290                295                300
Leu Ile Thr Ala Phe Ser Glu Thr Phe Thr Glu Leu Phe Pro Lys Ser
305                310                315                320
Asn Tyr Leu Trp Leu Ala Thr Gly Val Ser Ile Leu Ala Cys Ile Phe
                325                330                335
Ala Asn Val Gly Leu Thr Lys Ile Ile Met Tyr Ser Thr Pro Val Leu
                340                345                350
Met Phe Ile Tyr Pro Leu Ala Ile Thr Leu Ile Leu Leu Ala Leu Leu
                355                360                365
Ser Pro Leu Phe Lys His Ser Lys Ile Val Tyr Arg Phe Thr Thr Leu
                370                375                380
Phe Thr Met Val Ala Ala Phe Val Asp Gly Val Lys Ala Ser Pro Glu
385                390                395                400
Phe Phe Val Asn Thr Lys Phe Ala Gln Thr Ile Ile Gly Phe Gly Glu
                405                410                415
Asn Tyr Leu Pro Phe Phe Asn Ile Gly Met Gly Trp Ile Val Pro Ala
                420                425                430
Phe Ile Gly Phe Ile Ile Gly Ile Ile Val Tyr Phe Met Thr Ala Lys
                435                440                445
Lys Ser Ser His Val Gln
                450

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<210> 4462

<211> 150

<212> PRT

<213> S.epidermidis

<400> 4462

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Asn Lys Val Lys Gln Ser Tyr Tyr Ser His Thr Pro Gln Ser Lys Ile
1                5                10                15
Lys Ser Val Ala Ile Asn Lys His Ala His Gln Ser Ile Ser Ile Gly
                20                25                30
Ile Val Phe Val Val Val Ile Phe Val Ser Val Ile Gln Ile Leu Leu
                35                40                45
His Gln Arg Leu Lys Gln Asn Ala Pro Leu Glu Arg Leu Tyr Leu Val
                50                55                60
Pro Tyr Ser Gln Leu Lys Leu Tyr Leu Thr Tyr Ile Ser Val His Val
65                70                75                80
Val Ile Leu Met Leu Met Leu Leu Met Ile Ser Leu Leu Met His Gln
                85                90                95
Pro Leu Ser Ile Leu Phe Tyr Leu Lys Thr Leu Ile Ile Val Leu Phe
                100                105                110
Tyr Glu Ala Gly Ile Ala Leu Leu Leu Phe Lys Ile Asn Val Leu Ser
                115                120                125
His Arg Ile Phe Met Ala Ile Ile Tyr Thr Val Ala Ile Gly Ile Ile
                130                135                140
Tyr Leu Trp Ile Gln Leu

```

145

150

<210> 4463

<211> 74

<212> PRT

<213> S.epidermidis

<400> 4463

Glu	Arg	Pro	Asn	Tyr	Gly	Met	Asn	Leu	Gly	His	Lys	Ser	Met	Phe	Gln
1				5					10					15	
Val	Phe	Tyr	Asn	Val	Lys	Thr	Val	Met	Asn	Phe	Trp	Ala	Leu	Thr	Glu
			20					25					30		
Cys	Ile	Ser	Ile	Asp	Lys	Ala	Ile	Trp	Leu	Ser	Thr	Ile	Lys	Glu	Trp
		35					40					45			
His	Asn	Glu	Gly	Ile	Met	Asn	Ile	Cys	Leu	Ile	Leu	Gln	Leu	Phe	Ser
	50					55					60				
Arg	Lys	Ser	Asn	Gly	Leu	Met	Val	Val	Lys						
65					70										

<210> 4464

<211> 175

<212> PRT

<213> S.epidermidis

<400> 4464

Glu	Met	Arg	Lys	Cys	Val	Leu	Met	Thr	Val	Ala	Ala	Ser	Ala	Thr	Leu
1				5					10					15	
Leu	Leu	Ala	Gly	Cys	Gly	Asn	Gly	Gln	Lys	Glu	Asp	Lys	Asp	Val	Thr
			20					25					30		
Val	Ser	Leu	Pro	Thr	Glu	Ala	Lys	Ala	Asp	Lys	Leu	Asp	Ala	Gln	Gly
		35					40					45			
Tyr	Asp	Ala	Ala	Met	Pro	Val	Tyr	Ser	Ala	Val	Tyr	Asp	Ala	Leu	Val
	50					55					60				
Lys	Tyr	Asp	Lys	Asp	Lys	Gly	Ile	Lys	Ala	Gly	Leu	Ala	Asp	Lys	Trp
65					70					75					80
Ser	Val	Asp	Glu	Ser	Gly	Lys	Val	Tyr	Glu	Phe	His	Leu	Lys	Lys	Asn
				85					90					95	
Val	Lys	Phe	Ser	Asp	Gly	Ser	Ala	Leu	Asp	Ala	Lys	Asp	Val	Lys	Phe
			100					105					110		
Ser	Ile	Asp	Arg	Ala	Lys	Ala	Met	Asn	Lys	Asp	Ser	Thr	Val	Glu	Thr
		115					120					125			
Leu	Lys	Lys	Leu	Asp	Lys	Val	Val	Val	Lys	Asn	Glu	His	Val	Val	Gln
	130					135					140				
Ile	Arg	Leu	Lys	Ser	Pro	Ser	Asn	Gln	Val	Leu	Asn	Glu	Leu	Thr	Gln
145					150					155					160
Val	Arg	Pro	Leu	Arg	Ile	Met	Ser	Pro	His	Ser	Val	Glu	Gly	Cys	
				165					170					175	

<210> 4465

<211> 263

<212> PRT

<213> S.epidermidis

<400> 4465

Ile	Arg	Arg	Lys	Ile	Asp	Met	Ser	Lys	Thr	Ala	Ile	Ile	Thr	Gly	Ala
1				5					10					15	

Ala Gly Gly Leu Gly Lys Gly Ile Ala Glu Arg Leu Ala Asn Asp Gly
20 25 30
Phe Asn Ile Val Leu Gln Asp Ile Asn Glu Ala Leu Leu Leu Glu Thr
35 40 45
Glu Lys Glu Phe Lys Glu Lys Gly Tyr Gln Ala Val Ala Phe Lys Ser
50 55 60
Asp Val Ser Lys Lys Lys Glu Gln Glu Glu Leu Val Gln Phe Ala Val
65 70 75 80
Thr Glu Phe Gly Gln Leu Asp Val Met Val Asn Asn Ala Gly Val Asp
85 90 95
Ala Val Thr Pro Ile Leu Glu Ile Gly Glu Glu Glu Leu Ser Lys Leu
100 105 110
Phe Asn Ile Asn Val Phe Gly Thr Leu Phe Gly Ile Gln Ala Ala Ala
115 120 125
Asn Gln Phe Ile Lys Gln Lys Ser Lys Gly Lys Ile Ile Asn Ala Cys
130 135 140
Ser Ile Ala Gly His Glu Ser Tyr Glu Val Leu Gly Thr Tyr Ser Ala
145 150 155 160
Thr Lys His Ser Val Arg Ser Phe Thr Gln Thr Ala Ala Lys Glu Leu
165 170 175
Ala Asp Lys Gly Ile Thr Val Asn Ala Tyr Cys Pro Gly Val Ala Lys
180 185 190
Thr Glu Met Trp Asp Arg Ile Asp Glu Glu Met Val Lys Leu Asp Asp
195 200 205
Ser Leu Glu Ile Gly Asp Ala Phe Glu Ala Phe Ser Ser Glu Ile Lys
210 215 220
Leu Gly Arg Tyr Gln Glu Pro Ser Asp Val Ala Asn Leu Val Ser Phe
225 230 235 240
Leu Ala Ser Asn Asp Ser Asp Tyr Ile Thr Gly Gln Ser Ile Leu Thr
245 250 255
Asp Gly Gly Leu Val Tyr Arg
260

<210> 4466

<211> 445

<212> PRT

<213> S.epidermidis

<400> 4466

Cys Lys Ile Glu Leu Arg Leu Ile Tyr Met Arg Leu Ile Thr Phe Phe
1 5 10 15
Lys Asp Leu Lys Ser Ile Ile Cys Phe Asn Arg Glu Arg Arg Met Asn
20 25 30
Val Lys Gln Leu Ser Thr Thr Leu Lys Val Arg Leu Ile Cys Asp Phe
35 40 45
Phe Gln Asn Ile Ile Val Thr Ala Phe Leu Pro Phe Ile Ala Leu Tyr
50 55 60
Leu Thr Asp Met Val Asn Gln His Phe Ser Gly Leu Phe Leu Phe Gly
65 70 75 80
Leu Val Met Ile Asn Phe Pro Ile Ser Leu Ile Ser Gly His Ile Ile
85 90 95
Glu Arg Leu Pro Lys Lys Thr Leu Thr Leu Ser Tyr Gln Phe Ile Leu
100 105 110
Ser Leu Met Leu Val Ile Met Ala Ile Ser Ile Ser Gln His Thr Phe
115 120 125
Lys Ile Ile Leu Phe Cys Ile Ala Tyr Thr Ile Phe Ser Ile Thr Ile

130		135		140
Gly Met Gln Gln Pro Ile Met Asp Thr Ile Ile Met Asp Ala Ile Thr				
145		150		155
Pro Glu Val Glu Gln Tyr Ile Tyr Lys Ile Ser Tyr Trp Leu Thr Asn				160
		165		170
Ile Ala Val Ala Phe Gly Ala Leu Ile Gly Gly Leu Met Tyr Gly Ala				175
		180		185
His Lys Ser Met Leu Phe Phe Ile Ala Phe Val Ile Tyr Ile Met Val				190
		195		200
Phe Ile Ala Leu Ile Val Trp Leu Pro Lys Asp Leu Asn Ile Val Thr				205
		210		215
Gln Ser His Thr His His Ala Asn Glu Lys Gln Phe Ser Met Gly Gln				220
225		230		235
Ile Leu Lys Ser Tyr Lys Pro Ala Phe Lys Asp Thr Thr Tyr Leu Leu				240
		245		250
Leu Ile Ile Gly Phe Ser Ile Leu Thr Met Gly Glu Leu Ser Ala Ser				255
		260		265
Ser Tyr Ile Ser Val Arg Leu Lys Gln Glu Phe Asp Pro Met Ile Leu				270
		275		280
Phe Ser Leu His Ile Asn Gly Val Lys Met Tyr Ser Leu Leu Leu Met				285
		290		295
Thr Asn Thr Ile Ile Val Ile Ile Phe Thr Tyr Phe Ile Ser Lys Ile				300
305		310		315
Val Met Arg Met Asn Val Lys Thr Ala Leu Leu Val Gly Ile Ile Phe				320
		325		330
Tyr Val Ile Gly Tyr Ser Asn Leu Thr Tyr Leu Asn Asp Phe Thr Leu				335
		340		345
Leu Ile Ile Phe Met Ile Ile Ala Thr Ile Gly Glu Met Val Tyr Ser				350
		355		360
Pro Ile Leu Glu Glu Asn Arg Phe Lys Met Val Pro Ser His Lys Arg				365
		370		375
Gly Thr Tyr Ser Ala Val His Ala Leu Gly Phe Asn Leu Ala Glu Leu				380
385		390		395
Leu Ala Arg Phe Gly Ile Ile Leu Gly Val Phe Leu Thr Ser Met Glu				400
		405		410
Met Gly Ile Tyr Met Phe Val Leu Leu Leu Leu Gly Gly Met Ser Leu				415
		420		425
Tyr Ile Ala Val Ser Arg Phe Asn Asn Thr Asn Ser Gln				430
		435		440
				445

<210> 4467

<211> 52

<212> PRT

<213> S.epidermidis

<400> 4467

Val Gln Ser Asp Asp Leu Asn Ala Ile Tyr Met Leu Lys Asp Ser His				
1	5		10	15
Ile Asp Leu Ile Asp Asp Met Ser Ser Ile Val Val His Ile Ala Thr				
	20		25	30
Gln Tyr Tyr Arg Asp Val Gly Ala Leu Asp Val Arg Ile Phe Gln Pro				
	35		40	45
Arg Phe Tyr Lys				
50				

<210> 4468

<211> 80
 <212> PRT
 <213> S.epidermidis

<400> 4468

Lys	Thr	Thr	Asp	Asn	Asn	Asp	Phe	His	Asn	Ile	Thr	Pro	Lys	Ser	Glu
1				5					10					15	
Ile	Leu	Val	Met	Leu	Asn	Ile	Ala	Met	Thr	Ser	Met	Val	Thr	Gln	Ile
			20					25					30		
Val	Asp	Asp	Thr	Ile	Cys	Phe	Ile	Ile	Ile	Leu	Ile	Pro	Arg	Ile	Glu
		35					40					45			
Pro	Ser	Arg	Arg	Met	Ser	Ile	Val	Ile	Val	Thr	Glu	His	Ala	Val	Asn
	50					55					60				
Val	Glu	Leu	Lys	Lys	Thr	Ser	Asn	Asn	Asn	Trp	Asn	Ala	Glu	Ser	Leu
65					70					75					80

<210> 4469
 <211> 175
 <212> PRT
 <213> S.epidermidis

<400> 4469

Pro	Gln	Leu	Asp	Asp	Thr	Thr	Pro	Phe	Lys	Lys	Gly	Val	Gly	Ile	Asp
1				5					10					15	
Leu	Ala	Arg	Leu	Ser	Leu	Glu	Lys	Ala	Glu	Thr	Leu	Lys	Gly	Gln	Arg
			20					25					30		
Pro	Leu	Thr	Tyr	Tyr	Leu	Thr	Asp	Lys	Pro	Gln	Glu	Thr	Lys	His	Val
		35					40					45			
Phe	Asp	Thr	Ala	Val	Ser	Thr	Ser	Val	Leu	Tyr	Leu	Ile	Glu	Asp	Ile
	50					55					60				
Pro	Gln	His	Ala	Lys	Asp	Leu	Lys	Glu	Val	Leu	Lys	Pro	Gly	Gly	Val
65					70					75					80
Tyr	Tyr	Ala	Ser	Phe	Ala	Asp	Leu	Thr	Asn	Asn	Pro	Ser	Arg	Gln	Phe
				85					90					95	
Met	Asp	Asp	Thr	Ile	Asn	Gln	Tyr	Gly	Ala	Thr	Pro	Ser	Gln	Asn	His
			100					105					110		
Ser	Leu	Lys	His	Ile	Val	Asp	Ser	Phe	Val	Asp	Ala	Gly	Phe	Glu	Val
		115					120					125			
Ala	Val	Met	Lys	Glu	His	Val	Pro	Asp	Val	Ile	Asp	Leu	Thr	His	Tyr
		130				135					140				
Ser	Asp	Phe	Tyr	Leu	Ser	Pro	Asn	Asp	Tyr	Leu	Gln	Thr	Leu	Tyr	Glu
145					150					155					160
Glu	Ser	Phe	Leu	Ile	Lys	Ala	Ser	Val	Lys	Glu	Gly	Thr	Glu	Lys	
				165					170					175	

<210> 4470
 <211> 54
 <212> PRT
 <213> S.epidermidis

<400> 4470

Leu	Ser	Ile	Asp	Thr	Lys	Ala	Leu	Met	Ser	Ile	Thr	Val	Thr	Ile	Ala
1					5				10					15	
Leu	Arg	Leu	Glu	Val	Val	Ile	Glu	Met	Leu	Asp	Ile	Glu	Trp	Tyr	Ser
			20					25					30		
Phe	Gln	Asn	Glu	Val	Ala	Asp	Thr	Lys	Leu	Lys	Ile	Val	Trp	Lys	Thr

Ile Thr Glu Thr Ser Trp
50

40

45

<210> 4471
<211> 58
<212> PRT
<213> S.epidermidis

<400> 4471
Val Lys Val Asp Val Leu His His Leu Gly Asn His Lys Lys Met Leu
1 5 10 15
Asn Gln Lys Leu Gly Thr Leu Gln Val Ile His Cys Asn Val Pro Ser
20 25 30
Ser Ile Tyr Lys Asp Leu Val Leu Phe Phe Arg Ile Phe Ser Ser Tyr
35 40 45
Phe Arg Asp Asn Thr Ile His Thr His Ile
50 55

<210> 4472
<211> 48
<212> PRT
<213> S.epidermidis

<400> 4472
Arg Phe Pro Asp Lys Cys Ser Ser Leu Lys Val Lys Ala Gly Asp Val
1 5 10 15
Ser Leu Ala Ile Ala Phe Ile Phe Gly Met Pro Lys Pro Leu Val Val
20 25 30
Asn Asp Gly Val Met Val Phe Val Asp Arg Gly Gln Cys Leu Asn Glu
35 40 45

<210> 4473
<211> 692
<212> PRT
<213> S.epidermidis

<400> 4473
Tyr Lys Lys Asp Arg Gly Ala Leu Asn Met Lys Asn Lys Lys Asn Ser
1 5 10 15
Tyr Ser Ile Arg Lys Leu Ser Val Gly Ala Ser Ser Ile Ile Val Ala
20 25 30
Ser Met Leu Phe Ile Gly Gly Gly Ser Val His Ala Ala Glu Ser Asn
35 40 45
His Leu Glu Asn Gln Glu Gln Ser Glu Val Ser Ala Ser His Ser Ile
50 55 60
Glu Met Gln His Lys Asn Gln Glu Thr Gln Gln Thr Glu Asn Lys Asp
65 70 75 80
Asn Lys Thr Asn His Ser Glu Thr Ile Asp Lys Thr Pro Thr Ile His
85 90 95
Asn Asn Gly Tyr Ser Tyr His Glu Thr Pro Ser Thr Asp Val Lys Ser
100 105 110
Asn Glu Asp Lys Gln Ile Asp Ser Gln Phe Asn Gln Pro Gln Thr Ser
115 120 125
Met Pro Asn Asn Asp Gln Gln Asn Pro Lys Lys Val Ala Glu His Thr
130 135 140

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Thr 145	Lys	Ser	Ile	Asn	Ala 150	Lys	Lys	Glu	Glu	Thr 155	Arg	Lys	Asn	Glu	Asn 160
Ala	Lys	Ser	Leu	Val	Gln	Pro	Gln	Gln	Asp	Asp	Lys	Thr	Thr	Ser	Glu
				165					170					175	
Gln	Thr	Lys	Met	Lys	Glu	Ser	Arg	Glu	Gln	Glu	Ile	Thr	Asn	Glu	Gln
			180					185					190		
Lys	Gln	Leu	Gln	Ser	Lys	Asp	Val	Lys	Asn	Ala	Gln	Gln	Glu	Asn	Gln
		195				200					205				
Asn	Ile	Asp	Gln	Glu	Lys	Ser	Gln	Glu	Lys	Ile	Lys	Val	Gln	Gln	Ser
	210					215					220				
Asn	Ile	Glu	Lys	Ala	Gln	Lys	Ser	Ser	Arg	Ile	Asp	Gly	Lys	Leu	Asp
225					230					235				240	
Asn	Gln	Tyr	Asn	Lys	Asp	Ala	Thr	Gln	Ser	Asp	Glu	Gly	Thr	Ala	Ser
				245				250						255	
Glu	Asn	Val	Ser	Glu	Gln	His	Ile	Thr	Ala	Lys	Asp	Gly	Gly	Val	Thr
			260					265					270		
Arg	Asn	Asn	Arg	Gly	Asp	Lys	His	Leu	Asn	Gln	Glu	Lys	Pro	Thr	Thr
		275					280					285			
Ser	Ser	Asp	Lys	Glu	Leu	Lys	Val	Asp	Asp	Ile	Asp	Lys	Asp	Leu	Ser
	290					295				300					
Thr	Lys	Glu	Ser	Pro	Glu	Asn	Glu	Lys	Asp	Asp	Ser	Arg	Lys	Gly	Ile
305					310					315				320	
Lys	Ala	Ile	Thr	Lys	Asn	Ser	Gln	Ala	Thr	Thr	Arg	Asn	Thr	Ala	Thr
				325					330					335	
Thr	Glu	Ala	Ser	Lys	Glu	Leu	Lys	Asp	Gln	Thr	Asn	Lys	Val	Ala	Ser
			340					345					350		
Gln	Lys	Glu	Tyr	Lys	Asn	His	Asp	Pro	Ile	Ile	Leu	Val	His	Gly	Phe
		355					360					365			
Asn	Gly	Tyr	Ala	Ser	Gly	Thr	Gly	Pro	Val	Thr	Gly	Lys	Gly	Asn	Tyr
	370					375					380				
Trp	Gly	Gly	Asp	Arg	Leu	Lys	Ile	Ile	Gln	Asp	Tyr	Arg	Ala	Lys	Gly
385					390					395				400	
Tyr	Asn	Val	Met	Glu	Ala	Ser	Val	Ser	Ala	Phe	Gly	Ser	Asn	Tyr	Asp
			405						410					415	
Arg	Ala	Val	Glu	Leu	Tyr	Tyr	Tyr	Ile	Lys	Gly	Gly	Arg	Val	Asp	Tyr
			420					425					430		
Gly	Ala	Ala	His	Ala	Ala	Lys	Tyr	Gly	His	Glu	Arg	Tyr	Gly	Lys	Thr
		435					440					445			
Tyr	Ala	Gly	Ala	Tyr	Lys	Asp	Trp	Lys	Pro	Gly	Gln	Lys	Ile	His	Leu
		450				455					460				
Ile	Gly	His	Ser	Met	Gly	Gly	Gln	Thr	Ile	Arg	Tyr	Leu	Glu	Glu	Leu
465					470					475				480	
Leu	Arg	His	Gly	Ser	Pro	Glu	Glu	Val	Glu	Tyr	Gln	Lys	Gln	His	Gly
			485						490					495	
Gly	Asp	Ile	Ser	Pro	Leu	Tyr	Lys	Gly	Gly	Gln	Asp	Asn	Met	I	

Asp Leu Thr Thr Glu Gly Thr Asp Ile Leu Asn Gln Lys Thr Ser Leu
 595 600 605
 Asn Pro Asn Ile Val Tyr Lys Thr Tyr Gln Gly Glu Ser Thr Arg Pro
 610 615 620
 Gly Pro Asn Gly Thr Gln Lys Ala Asp Val Asn Met Asn Ile Gly Tyr
 625 630 635 640
 Thr Leu Thr Ala Asn Thr Ile Gly Lys Val Lys Asp Lys Ala Trp Arg
 645 650 655
 Glu Asn Asp Gly Leu Val Ser Val Ile Ser Gly Gln Tyr Pro Leu Asn
 660 665 670
 Gln Ala His Thr Phe Ala Thr Asp Lys Val Gln Lys Gly Val Trp Thr
 675 680 685
 Gly Thr Pro Val
 690

<210> 4474

<211> 327

<212> PRT

<213> S.epidermidis

<400> 4474

Ile Met Lys Glu Asn Phe Trp Ser Thr Leu Pro Arg Pro Phe Phe Ile
 1 5 10 15
 Leu Ala Pro Met Glu Asp Val Thr Asp Ile Val Phe Arg His Val Val
 20 25 30
 Ser Glu Ala Ala Arg Pro Asp Val Phe Phe Thr Glu Phe Thr Asn Thr
 35 40 45
 Glu Ser Tyr Cys His Pro Glu Gly Ile His Ser Val Arg Gly Arg Leu
 50 55 60
 Thr Phe Ser Asp Asp Glu Gln Pro Met Val Ala His Ile Trp Gly Asp
 65 70 75 80
 Lys Pro Glu Gln Phe Arg Glu Met Ser Ile Gly Leu Ala Asp Met Gly
 85 90 95
 Phe Lys Gly Ile Asp Leu Asn Met Gly Cys Pro Val Ala Asn Val Ala
 100 105 110
 Lys Lys Gly Lys Gly Ser Gly Leu Ile Leu Arg Pro Glu Thr Ala Ala
 115 120 125
 Glu Ile Ile Gln Ala Ser Lys Ala Gly Gly Leu Pro Val Ser Val Lys
 130 135 140
 Thr Arg Leu Gly Tyr Tyr Asp Ile Asp Glu Trp Arg Asp Trp Leu Lys
 145 150 155 160
 His Val Phe Glu Gln Asp Ile Ala Asn Leu Ser Ile His Leu Arg Thr
 165 170 175
 Arg Lys Glu Met Ser Lys Val Asp Ala His Trp Glu Leu Ile Glu Ala
 180 185 190
 Ile Lys Thr Leu Arg Asp Glu Ile Ala Pro Asn Thr Leu Leu Thr Ile
 195 200 205
 Asn Gly Asp Ile Pro Asp Arg Gln Thr Gly Leu Glu Leu Ala Asn Lys
 210 215 220
 Tyr Gly Ile Asp Gly Ile Met Ile Gly Arg Gly Ile Phe His Asn Pro
 225 230 235 240
 Phe Ala Phe Glu Lys Glu Pro Arg Glu His Ser Ser Lys Glu Leu Leu
 245 250 255
 Gly Leu Leu Arg Leu His Leu Ser Leu Phe Glu Lys Tyr Asp Lys Asp
 260 265 270
 Glu Ala Arg His Phe Lys Ser Leu Arg Arg Phe Phe Lys Ile Tyr Val

275 280 285
 Arg Gly Ile Arg Gly Ala Ser Glu Leu Arg His Gln Leu Met Asn Thr
 290 295 300
 Gln Ser Ile Ala Glu Ala Arg Glu Leu Leu Asp Thr Phe Glu Ala Arg
 305 310 315 320
 Met Asp Ala Arg Ser Glu Val
 325

<210> 4475'
 <211> 170
 <212> PRT
 <213> S.epidermidis

<400> 4475
 Gln Thr Met Glu Asp Ile Met Ile Leu Thr Ile Leu Phe Ile Phe Phe
 1 5 10 15
 Cys Ile Arg Leu Ile Ser Leu Lys Ile Ser Met Gln His Ala Lys Gln
 20 25 30
 Leu Lys Val Glu Gly Ala Val Glu Tyr Gly Val Lys Asn Ser Lys Tyr
 35 40 45
 Leu Ala Ile Thr His Val Leu Ile Tyr Met Ser Ala Ala Ile Glu Thr
 50 55 60
 Phe Ile His Lys Asp Thr Phe Asn Leu Leu Asn Gly Ile Gly Leu Ile
 65 70 75 80
 Ile Leu Ile Val Ala Tyr Ile Met Leu Phe Ile Val Ile Lys Thr Leu
 85 90 95
 Gly Arg Ile Trp Thr Leu Lys Leu Phe Ile Leu Pro Asn His Pro Ile
 100 105 110
 Ile Lys Ser Gly Leu Tyr Lys Val Thr Lys His Pro Asn Tyr Phe Leu
 115 120 125
 Asn Ile Ile Pro Glu Leu Ile Gly Val Leu Leu Leu Thr Asn Ala Thr
 130 135 140
 Tyr Thr Thr Leu Leu Leu Val Pro Tyr Ala Tyr Phe Leu Ile Val Arg
 145 150 155 160
 Ile Arg Gln Glu Glu Lys Leu Met Asn Ile
 165 170

<210> 4476
 <211> 325
 <212> PRT
 <213> S.epidermidis

<400> 4476
 Ser Leu Lys Glu Asp Asn Met Lys Asn Tyr Lys Lys Tyr Leu Ile Val
 1 5 10 15
 Leu Val Leu Cys Leu Thr Val Leu Ser Gly Cys Asn Leu Pro Gly Leu
 20 25 30
 Lys Asn Ser His Ser Asp Asp Asp Val Arg Ile Thr Ser Leu Gly Thr
 35 40 45
 Ser Glu Ser Gln Ile Ile Ser His Met Leu Arg Leu Leu Ile Glu His
 50 55 60
 Asp Thr Lys Gly Glu Ile Lys Pro Thr Leu Ile Asn Asn Leu Gly Ser
 65 70 75 80
 Ser Thr Ile Gln His Asn Ala Val Thr Ser Gly Gln Ala Asn Met Ser
 85 90 95
 Gly Thr Arg Tyr Thr Gly Thr Asp Leu Thr Gly Ala Leu Lys Glu Asp

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<210> 4477
<211> 525
<212> PRT
<213> S.epidermidis
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Leu	Ser	Lys	Glu	Met	Lys	Pro	Leu	Glu	Gln	Ala	Ile	Asn	Asp	Asn	Lys
1				5					10					15	
Lys	Lys	Lys	Arg	Phe	Asn	Phe	Arg	Met	Pro	Gly	Ala	Phe	Met	Ile	Leu
			20					25					30		
Phe	Ile	Leu	Thr	Val	Val	Ala	Val	Ile	Ala	Thr	Trp	Ile	Ile	Pro	Ala
			35				40					45			
Gly	Ala	Tyr	Ser	Lys	Leu	Ser	Tyr	Glu	Pro	Ser	Ser	Gln	Glu	Leu	Lys
			50			55					60				
Ile	Val	Asn	Pro	His	His	Gln	Val	Lys	Lys	Val	Pro	Gly	Thr	Gln	Lys
65				70						75				80	
Glu	Leu	Asp	Arg	Leu	Gly	Val	Lys	Ile	Lys	Ile	Glu	Gln	Phe	Lys	Ser
				85					90					95	
Gly	Ala	Ile	Asn	Lys	Pro	Val	Ser	Ile	Pro	Asn	Thr	Tyr	Glu	Arg	Leu
			100					105					110		
Lys	Gln	His	Pro	Ala	Gly	Leu	Asp	Gln	Ile	Thr	Ser	Ser	Met	Val	Lys
			115				120					125			
Gly	Thr	Ile	Glu	Ala	Val	Asp	Ile	Met	Val	Phe	Ile	Leu	Val	Leu	Gly
						135					140				
Gly	Leu	Ile	Gly	Val	Val	Gln	Ala	Ser	Gly	Ser	Phe	Glu	Ser	Gly	Leu
145					150					155					160

Leu Ala Leu Thr Gln Lys Thr Lys Gly His Glu Phe Met Leu Ile Ala
 165 170 175
 Phe Val Ser Ile Leu Met Ile Ile Gly Gly Thr Leu Cys Gly Ile Glu
 180 185 190
 Glu Glu Ala Val Ala Phe Tyr Pro Val Leu Val Pro Ile Phe Ile Ala
 195 200 205
 Leu Gly Tyr Asp Ser Ile Val Ser Val Gly Ala Ile Phe Leu Ala Ser
 210 215 220
 Ser Val Gly Ser Thr Phe Ser Thr Ile Asn Pro Phe Ser Val Val Ile
 225 230 235 240
 Ala Ser Asn Ala Ala Gly Thr Thr Phe Thr Asp Gly Leu Tyr Trp Arg
 245 250 255
 Ile Gly Ala Cys Ile Ile Gly Ala Ile Phe Val Ile Ser Tyr Leu Phe
 260 265 270
 Trp Tyr Cys Lys Lys Ile Lys Lys Asp Pro Lys Ser Ser Tyr Ser Tyr
 275 280 285
 Glu Asp Lys Ala Ala Phe Glu Lys Gln Trp Ser Val Leu His Asp Asp
 290 295 300
 Gly Ser Ser Glu Phe Thr Leu Arg Lys Lys Ile Ile Leu Thr Leu Phe
 305 310 315 320
 Val Leu Pro Phe Pro Ile Met Val Trp Gly Val Met Thr Gln Gly Trp
 325 330 335
 Trp Phe Pro Val Met Ala Ser Ala Phe Leu Ile Phe Thr Ile Val Ile
 340 345 350
 Met Phe Ile Ala Gly Thr Gly Gln Tyr Gly Leu Gly Glu Lys Gly Thr
 355 360 365
 Val Asp Ala Phe Val Asn Gly Ala Ser Ser Leu Val Gly Val Ser Leu
 370 375 380
 Ile Ile Gly Leu Ala Arg Gly Ile Asn Leu Val Leu Asn Lys Gly Met
 385 390 395 400
 Ile Ser Asp Thr Ile Leu His Phe Ser Ser Ile Val Gln His Met
 405 410 415
 Ser Gly Pro Leu Phe Ile Ile Val Leu Phe Ile Phe Phe Cys Leu
 420 425 430
 Gly Phe Ile Val Pro Ser Ser Ser Gly Leu Ala Val Leu Ser Met Pro
 435 440 445
 Ile Phe Ala Pro Leu Ala Asp Thr Val Gly Ile Pro Arg Phe Val Ile
 450 455 460
 Val Thr Thr Tyr Gln Phe Gly Gln Tyr Ala Met Leu Phe Leu Ala Pro
 465 470 475 480
 Thr Gly Leu Val Met Ala Thr Leu Gln Met Leu Asn Met Arg Tyr Ser
 485 490 495
 His Trp Leu Arg Phe Val Trp Pro Val Val Ala Phe Val Leu Ile Phe
 500 505 510
 Gly Gly Gly Leu Leu Ile Thr Gln Val Leu Ile Tyr Ser
 515 520 525

<210> 4478

<211> 41

<212> PRT

<213> S.epidermidis

<400> 4478

Asn Gly Glu Glu Trp Asn Asn Arg Met His Cys Met Asn Met Ile Lys
 1 5 10 15
 Leu Ile Ser Thr Tyr Thr Leu Lys Arg Tyr Phe Val Met Ser Val Pro

Ile Leu Pro Ser Ser Ala Ala Ser Asn
 20 25
 35 40

30

<210> 4479
 <211> 292
 <212> PRT
 <213> S.epidermidis

<400> 4479

Gly Ser Ser Phe Asn Cys Arg Asn Arg Thr Ser Ile Tyr Arg Thr Gly
 1 5 10 15
 Asp Asn Asp Ala Asn Met Asn Glu His Thr Lys Ile Glu Asn Gln Leu
 20 25 30
 Gln Tyr Tyr Leu Glu Gln Phe Thr Tyr Leu His Gln Leu Val Leu Glu
 35 40 45
 Asp Ser Arg His Ile Val Asp Leu Glu Asn Leu Ile Asp Glu Tyr Ser
 50 55 60
 Gln Trp Ile Leu Gln Pro Leu Ala Glu His His Tyr Leu Thr Trp Asn
 65 70 75 80
 Asp Leu Glu Thr Lys Ile Ser Phe Thr Lys Lys Leu Gln Glu Val Ser
 85 90 95
 Ala Lys Cys Val Lys Gln Val Glu Val Ile Arg Ala Gln Arg Leu Leu
 100 105 110
 Asn Gly Arg Ala Ser Thr Ser Gly Tyr Phe Glu Asn Ile Glu His Cys
 115 120 125
 Ile Asn Glu Glu Phe Gly Arg Trp Gln Ile Gly Gln Asn Asp Lys Leu
 130 135 140
 Leu Leu Ile Gly Ser Gly Ala Tyr Pro Met Thr Leu Ile Gln Val Ala
 145 150 155 160
 Lys Glu Thr Gly Ala Val Ile Gly Ile Asp Ile Asp Ser Glu Ala
 165 170 175
 Val Asp Leu Gly Gln Arg Val Val Asn Val Leu Ala Pro Asn Glu Asp
 180 185 190
 Ile Val Ile Ser Asn Gln Thr Val Asp Gln Leu Glu Asp Ile Gln Ser
 195 200 205
 Val Thr His Ile Ile Phe Ser Ser Thr Ile Pro Ile Lys Tyr Asp Ile
 210 215 220
 Leu Asn Glu Leu Tyr Thr Leu Thr Asn Asp Glu Val Val Val Ala Met
 225 230 235 240
 Arg Tyr Gly Asp Asp Met Lys Ala Leu Phe Asn Tyr Pro Ser Gln Ala
 245 250 255
 Thr Asp Glu Thr Gln Trp Arg Cys Glu Glu Leu Gln Thr Arg Pro Lys
 260 265 270
 Gln Ile Phe Asp Ile Ala Leu Tyr Arg Lys Val Ala Ser Lys Val Gly
 275 280 285
 Val Glu His Val
 290

<210> 4480
 <211> 41
 <212> PRT
 <213> S.epidermidis

<400> 4480

Thr Phe Gln Leu Arg Ala His Lys Pro Tyr Gly Asp Tyr Ile Gln Asn

1666

1		5		10		15
Lys	Phe	Tyr	Ser	Ile	Ser	Phe
		20			25	
Ile	Asn	Phe	Phe	Leu	Phe	Lys
		35			40	

<210> 4481
 <211> 306
 <212> PRT
 <213> S.epidermidis

<400> 4481

Lys	Ile	Lys	Leu	Leu	Glu	Val	Leu	Met	Met	Gln	Lys	Val	Val	Leu	Thr
1			5					10						15	
Ala	Ala	Ile	Thr	Gly	Ala	Gly	Asp	Thr	Ile	Gln	Lys	Asn	Glu	Asn	Val
		20					25					30			
Pro	Val	Thr	Pro	Gln	Glu	Leu	Ala	Asp	Ser	Ala	Ile	Lys	Cys	Ala	Arg
		35				40					45				
Ala	Gly	Ala	Thr	Val	Ala	His	Ile	His	Val	Arg	Asp	Pro	Glu	Thr	Gly
	50				55				60						
Gly	Val	Ser	His	Asp	Pro	Glu	Leu	Tyr	Ala	Glu	Thr	Val	Arg	Leu	Ile
65			70					75						80	
Arg	Glu	Ala	Asp	Glu	Asp	Ile	Val	Ile	Asn	Val	Thr	Ser	Gly	Gly	Gly
			85					90					95		
Gly	Asp	Phe	Ile	Pro	Ser	Leu	Glu	His	Pro	Glu	Thr	Gly	Gly	Glu	Gly
		100					105					110			
Thr	Trp	Ile	Gln	Thr	Pro	Glu	Glu	Arg	Phe	Lys	Pro	Ile	Gly	Asp	Leu
	115				120						125				
Leu	Pro	Glu	Met	Cys	Thr	Leu	Asp	Cys	Gly	Ser	Val	Asn	Met	Gly	Asp
	130			135						140					
Ala	Ile	Tyr	Leu	Ser	Pro	Ala	Ser	Trp	Leu	Arg	Lys	Gln	Ala	Gln	Met
145				150				155						160	
Val	Lys	Asp	Ala	Gly	Val	Lys	Pro	Glu	Leu	Glu	Cys	Phe	Asp	Thr	Gly
			165					170					175		
His	Val	Ser	Phe	Ala	Lys	Gln	Met	Ile	Glu	Glu	Gly	Leu	Ile	Asp	Gly
		180					185					190			
Asp	Pro	Met	Phe	Gln	Phe	Cys	Leu	Gly	Ile	Pro	Trp	Gly	Ala	Glu	Asn
	195					200				205					
Asp	Pro	Glu	Thr	Ile	Glu	Tyr	Leu	Lys	Ser	Arg	Ile	Pro	Glu	Asn	Ala
	210				215					220					
His	Trp	Ser	Ala	Phe	Gly	Ile	Gly	Lys	Met	Gln	Leu	Pro	Thr	Val	Arg
225				230					235					240	
Lys	Val	Ala	Gln	Arg	Gly	Gly	Asn	Val	Arg	Val	Gly	Leu	Glu	Asp	Asn
			245					250					255		
Ile	Tyr	Leu	Arg	Lys	Gly	Val	Lys	Ala	Thr	Asn	Glu	Ala	Leu	Val	Glu
		260					265					270			
Glu	Ala	Lys	Arg	Ile	Leu	Ala	Glu	Leu	Asp	Ile	Glu	Pro	Leu	Thr	Pro
	275					280					285				
Ala	Glu	Ala	Arg	Glu	Lys	Phe	Asn	Leu	Arg	Asn	Pro	His	Gly	Lys	Gly
	290				295					300					
Asp	Lys														
305															

<210> 4482
 <211> 652
 <212> PRT

1666

<213> S.epidermidis

<400> 4482

Gly Lys Lys Leu Ile Glu Val Ile Phe Leu Lys Asn Asn Asn Glu Thr
 1 5 10 15
 Arg Arg Phe Ser Ile Arg Lys Tyr Thr Val Gly Val Val Ser Ile Ile
 20 25 30
 Thr Gly Ile Thr Ile Phe Val Ser Gly Gln His Ala Gln Ala Ala Glu
 35 40 45
 Met Thr Gln Ser Ser Ser Asp Ser Asn Glu Gln Ser Gln Gln Thr Glu
 50 55 60
 Gln Val Glu His Lys Glu Asp Thr Thr His Leu Ser Asn Glu Leu Asn
 65 70 75 80
 Gln Glu Gly Glu Thr Ala Ser Gln Ser Lys Thr Ser Gln Glu Asn Gln
 85 90 95
 Ser Asp Gly Asn Val Gln Lys Lys Ser Asn Gln Ile Gln Gln Asp Ser
 100 105 110
 Thr Gln Thr Ser Pro Leu Asn Asp Gln Lys Gln Thr Ser Met Glu Gln
 115 120 125
 Gln Ser Lys Asp Asn His Val Thr Pro Asn Ser Arg Gln Asp Thr Tyr
 130 135 140
 Pro Lys Gly Gln Asn Gln Asp Asp Lys Gly Lys Gln Gln Phe Lys Asp
 145 150 155 160
 Asn Gln His Ser Gln Thr Gly His Gln Pro Asn Thr Gln Asn Gln Asn
 165 170 175
 Asn Asp Gln Asp Ser Ser Asp Lys Lys Gln His Pro Ser Asp Gln Thr
 180 185 190
 Gln Asp Ser Ser Ser Lys Gly Thr Gln Pro Lys Gln Ser Gln Ser Ile
 195 200 205
 Glu Asp Arg Asp Lys Thr Val Lys Gln Pro Ser Ser Lys Val His Lys
 210 215 220
 Ile Gly Asn Thr Lys Thr Asp Lys Thr Val Lys Thr Asn Gln Lys Lys
 225 230 235 240
 Gln Thr Ser Leu Thr Ser Pro Arg Val Val Lys Ser Lys Gln Thr Lys
 245 250 255
 His Ile Asn Gln Leu Thr Ala Gln Ala Gln Tyr Lys Asn Gln Tyr Pro
 260 265 270
 Val Val Phe Val His Gly Phe Val Gly Leu Val Gly Glu Asp Ala Phe
 275 280 285
 Ser Met Tyr Pro Asn Tyr Trp Gly Gly Thr Lys Tyr Asn Val Lys Gln
 290 295 300
 Glu Leu Thr Lys Leu Gly Tyr Arg Val His Glu Ala Asn Val Gly Ala
 305 310 315 320
 Phe Ser Ser Asn Tyr Asp Arg Ala Val Glu Leu Tyr Tyr Tyr Ile Lys
 325 330 335
 Gly Gly Arg Val Asp Tyr Gly Ala Ala His Ala Ala Lys Tyr Gly His
 340 345 350
 Lys Arg Tyr Gly Arg Thr Tyr Glu Gly Ile Met Pro Asp Trp Glu Pro
 355 360 365
 Gly Lys Lys Ile His Leu Val Gly His Ser Met Gly Gly Gln Thr Ile
 370 375 380
 Arg Leu Met Glu His Phe Leu Arg Asn Gly Asn Gln Glu Glu Ile Asp
 385 390 395 400
 Tyr Gln Arg Gln Tyr Gly Gly Thr Val Ser Asp Leu Phe Lys Gly Gly
 405 410 415
 Gln Asp Asn Met Val Ser Thr Ile Thr Thr Leu Gly Thr Pro His Asn

			420					425					430				
Gly	Thr	Pro	Ala	Ala	Asp	Lys	Leu	Gly	Ser	Thr	Lys	Phe	Ile	Lys	Asp		
		435					440					445					
Thr	Ile	Asn	Arg	Ile	Gly	Lys	Ile	Gly	Gly	Thr	Lys	Ala	Leu	Asp	Leu		
	450					455					460						
Glu	Leu	Gly	Phe	Ser	Gln	Trp	Gly	Phe	Lys	Gln	Gln	Pro	Asn	Glu	Ser		
465					470					475					480		
Tyr	Ala	Glu	Tyr	Ala	Lys	Arg	Ile	Ala	Asn	Ser	Lys	Val	Trp	Glu	Thr		
				485					490					495			
Glu	Asp	Gln	Ala	Val	Asn	Asp	Leu	Thr	Thr	Ala	Gly	Ala	Glu	Lys	Leu		
		500					505					510					
Asn	Gln	Met	Thr	Thr	Leu	Asn	Pro	Asn	Ile	Val	Tyr	Thr	Ser	Tyr	Thr		
	515						520					525					
Gly	Ala	Ala	Thr	His	Thr	Gly	Pro	Leu	Gly	Asn	Glu	Val	Pro	Asn	Ile		
	530					535					540						
Arg	Gln	Phe	Pro	Leu	Phe	Asp	Leu	Thr	Ser	Arg	Val	Ile	Gly	Gly	Asp		
545					550					555					560		
Asp	Asn	Lys	Asn	Val	Arg	Val	Asn	Asp	Gly	Ile	Val	Pro	Val	Ser	Ser		
				565					570					575			
Ser	Leu	His	Pro	Ser	Asp	Glu	Ala	Phe	Lys	Lys	Val	Gly	Met	Met	Asn		
			580					585					590				
Leu	Ala	Thr	Asp	Lys	Gly	Ile	Trp	Gln	Val	Arg	Pro	Val	Gln	Tyr	Asp		
	595						600					605					
Trp	Asp	His	Leu	Asp	Leu	Val	Gly	Leu	Asp	Thr	Thr	Asp	Tyr	Lys	Arg		
	610					615					620						
Thr	Gly	Glu	Glu	Leu	Gly	Gln	Cys	Tyr	Met	Ser	Met	Ile	Asn	Asn	Met		
625					630					635					640		
Leu	Lys	Val	Glu	Glu	Leu	Asp	Gly	Ile	Thr	Arg	Lys						
				645					650								

<210> 4483

<211> 77

<212> PRT

<213> S.epidermidis

<400> 4483

Lys	Lys	Pro	Trp	Phe	Arg	Glu	Thr	His	Lys	Lys	His	Pro	Gln	Pro	Val		
1				5					10				15				
Gln	Ile	Phe	Met	Asp	Arg	Asn	Arg	Gly	Leu	Glu	Phe	Phe	Leu	Ile	Lys		
		20						25				30					
Lys	Gly	Leu	Ser	Ala	Ile	Phe	Gln	Leu	Gly	Pro	Asn	Phe	Pro	Asn	Met		
	35						40				45						
Trp	Ser	Gln	Asn	Phe	Leu	Ile	Ser	Ser	Leu	Glu	Ile	Arg	Thr	Ser	Asp		
	50					55					60						
Val	Ser	Glu	Pro	Arg	Lys	Ser	Pro	Trp	Ser	His	Leu	Cys					
65					70					75							

<210> 4484

<211> 301

<212> PRT

<213> S.epidermidis

<400> 4484

Asn	Phe	Arg	Leu	Arg	Ser	Asp	Val	Met	Glu	Ile	Ile	Ile	Ile	Gly	Gly		
1			5						10					15			
Phe	Leu	Gly	Ser	Gly	Lys	Thr	Ser	Ala	Ile	Asn	His	Leu	Ile	Ala	Asp		

20 25 30
 Ala Leu Glu Asn Asn Leu Asn Pro Ala Val Ile Met Asn Glu Phe Gly
 35 40 45
 Lys Arg Ser Val Asp Gly Gln Leu Ile Glu Arg Pro Glu Val Pro Met
 50 55 60
 Ser Glu Ile Thr Glu Gly Cys Ile Cys Cys Ala Met Lys Ser Asp Val
 65 70 75 80
 Ser Gln Gln Leu His Glu Leu Tyr Leu Lys Tyr Gln Pro Asp Ile Ile
 85 90 95
 Phe Ile Glu Cys Ser Gly Val Ala Glu Pro Leu Ala Val Val Asp Ala
 100 105 110
 Cys Phe Thr Pro Val Leu Ala Pro Phe Ile Thr Leu Arg Ser Met Val
 115 120 125
 Gly Ile Ile Asp Ala Ser Met Tyr Ser Arg Ile Lys Ser Tyr Pro Gln
 130 135 140
 Asp Ile Ala Ala Leu Phe Tyr Glu Gln Leu Arg His Cys Ser Thr Leu
 145 150 155 160
 Phe Val Asn Lys Ile Asp Lys Ile Glu Val Glu Glu Thr Ala Arg Leu
 165 170 175
 Leu Arg Gln Leu Glu Arg Leu Asn Ser Asp Ala Asn Ile Gln Val Gly
 180 185 190
 Gln Phe Gly Glu Leu Asn Leu Lys Ser Leu Leu Glu Pro Thr His Ile
 195 200 205
 Asn Ser Asn Ala Cys Gly Thr Leu His Ser Asn Ile Asn His Gln Phe
 210 215 220
 Ile Glu Asn Pro Arg Leu Gln Thr Lys Glu Glu Met Ile Ser Ala Leu
 225 230 235 240
 Asp Asn Leu Pro Gln Asp Val Tyr Arg Val Lys Gly Phe Val Arg Phe
 245 250 255
 Ser Asp Gln Gln His Val Tyr Leu Val Gln Tyr Ala Gln Gly Asn Ile
 260 265 270
 Glu Leu Ser Pro Ile Gln Leu Lys Asn Asp Val Pro Leu Tyr Leu Ile
 275 280 285
 Val Ile Gly Lys His Leu Lys Gln Ile Gln Leu Asp Leu
 290 295 300

<210> 4485

<211> 43

<212> PRT

<213> S.epidermidis

<400> 4485

Arg Val Leu Cys Leu Phe Ile Ser Val Ile Phe Arg Asn Asp Leu Leu
 1 5 10 15
 Leu Ile Ile Tyr Lys Asp Leu Tyr Ile Glu Asn Ile Asp Cys Phe Asn
 20 25 30
 Asn Arg Arg Ser Cys Cys Tyr Tyr Glu Ser Val
 35 40

<210> 4486

<211> 52

<212> PRT

<213> S.epidermidis

<400> 4486

Leu Asn Gln Cys Glu Lys His Ile Tyr Arg Lys Phe Ile Lys Tyr Ile

1670

1		5		10		15									
Glu	Asp	Ile	Gln	Leu	Ile	Lys	Lys	Asn	Asn	Leu	Ile	Cys	Asn	Leu	Asn
		20						25					30		
Leu	Tyr	Phe	Cys	His	Leu	Ser	Tyr	Ser	Asn	Asn	Ser	Ile	Phe	Lys	His
		35					40					45			
Phe	His	Ile	Leu												
	50														

<210> 4487
 <211> 239
 <212> PRT
 <213> S.epidermidis

<400> 4487															
Thr	Leu	Lys	Cys	Asn	Lys	Phe	Thr	Leu	Lys	Ile	Gly	Asp	Met	Ile	Asn
1				5					10					15	
Met	Asn	Ile	Phe	Val	Thr	Gly	Thr	Asn	Thr	Asp	Ile	Gly	Lys	Thr	Tyr
		20						25				30			
Val	Thr	Lys	Tyr	Leu	Tyr	Lys	Ala	Leu	Arg	Thr	Arg	Gly	Tyr	Arg	Val
		35					40					45			
Cys	Ile	Phe	Lys	Pro	Phe	Gln	Thr	Glu	Glu	Ile	Gly	Gly	Gly	Arg	Tyr
	50					55					60				
Pro	Asp	Leu	Glu	Ile	Tyr	Lys	Asn	Glu	Cys	Asp	Leu	Asp	Tyr	Asp	Val
65					70					75				80	
Thr	Ser	Leu	Tyr	Thr	Phe	Lys	Asp	Pro	Val	Ser	Pro	His	Leu	Ala	Phe
				85					90					95	
Lys	Ile	Glu	Arg	His	Gln	Gln	Leu	Asn	His	Gln	Thr	Met	Ile	Asp	Lys
			100					105					110		
Leu	Glu	Ser	Leu	Lys	Ala	Gln	Phe	Asp	Met	Ile	Leu	Ile	Glu	Gly	Ala
		115					120					125			
Gly	Gly	Ile	Ala	Val	Pro	Ile	Tyr	Glu	Tyr	Ser	Asp	His	Phe	Tyr	Met
	130					135					140				
Thr	Thr	Asp	Leu	Ile	Lys	Asp	Thr	Ser	Asp	Phe	Ile	Val	Ser	Val	Leu
145					150					155					160
Pro	Ser	Lys	Leu	Gly	Ala	Ile	Asn	Asp	Ala	Ile	Val	His	Gln	Lys	Tyr
				165					170					175	
Ile	Asp	His	Gln	Glu	Leu	Pro	Pro	Asn	Val	Leu	Ile	Met	Asn	Asn	Tyr
			180					185					190		
Thr	Asp	Ser	Ala	Ile	Glu	Gln	Asp	Asn	Leu	His	Thr	Ile	Glu	Lys	Leu
		195					200					205			
Ile	His	Lys	Ser	Val	Tyr	Thr	Leu	Gly	His	Gln	Ala	Thr	Gln	Glu	Ser
	210					215					220				
Phe	Ser	Glu	Ala	Phe	Ile	Gln	Arg	Ile	Ile	Gly	Gly	Ser	Asn	Gly	
225						230				235					

<210> 4488
 <211> 47
 <212> PRT
 <213> S.epidermidis

<400> 4488															
Pro	Ser	Lys	Cys	Phe	Asn	Thr	Ile	Thr	Ser	Ile	Leu	Asn	Asn	His	Ile
1				5					10					15	
Pro	Lys	Leu	Pro	Leu	Thr	Asn	Lys	Leu	Met	Ala	Glu	Ser	Phe	Tyr	Met
		20						25					30		
Lys	Leu	Phe	Phe	Ile	Thr	Phe	Phe	Thr	Thr	Thr	Lys	Tyr	Glu	Gln	

1670: 4487-4488

35

40

45

<210> 4489

<211> 267

<212> PRT

<213> S.epidermidis

<400> 4489

Ile	Glu	Arg	Cys	Glu	Asn	Met	Gln	His	Ser	Ser	Lys	Ile	Ile	Val	Phe
1				5					10					15	
Val	Ser	Phe	Leu	Ile	Leu	Thr	Ile	Phe	Ile	Gly	Gly	Cys	Gly	Phe	Ile
			20					25					30		
Asn	Lys	Glu	Asp	Ser	Lys	Glu	Thr	Glu	Ile	Lys	Gln	Asn	Phe	Asn	Lys
		35					40					45			
Met	Leu	Asp	Val	Tyr	Pro	Thr	Lys	Asn	Leu	Glu	Asp	Phe	Tyr	Asp	Lys
	50					55					60				
Glu	Gly	Tyr	Arg	Asp	Glu	Glu	Phe	Asp	Lys	Asp	Asp	Lys	Gly	Thr	Trp
65					70					75					80
Ile	Ile	Arg	Ser	Glu	Met	Thr	Lys	Gln	Pro	Lys	Gly	Lys	Ile	Met	Thr
				85					90					95	
Ser	Arg	Gly	Met	Val	Leu	Tyr	Ile	Asn	Arg	Asn	Thr	Arg	Thr	Ala	Lys
			100					105					110		
Gly	Tyr	Phe	Leu	Ile	Asp	Lys	Ile	Lys	Asp	Asp	Ser	Asn	Gly	Arg	Pro
		115					120					125			
Ile	Glu	Asn	Glu	Lys	Lys	Tyr	Pro	Val	Lys	Met	Asn	His	Asn	Lys	Ile
	130					135					140				
Phe	Pro	Thr	Lys	Pro	Ile	Ser	Asp	Asp	Lys	Leu	Lys	Lys	Glu	Ile	Glu
145					150					155					160
Asn	Phe	Lys	Phe	Phe	Val	Gln	Tyr	Gly	Asn	Phe	Lys	Asn	Leu	Lys	Asp
			165					170						175	
Tyr	Lys	Asn	Gly	Asp	Ile	Leu	Tyr	Asn	Pro	Asn	Val	Pro	Ser	Tyr	Ser
		180						185					190		
Ala	Lys	Tyr	Gln	Leu	Ser	Asn	Asn	Glu	Tyr	Asn	Val	Gln	Gln	Leu	Arg
		195					200					205			
Lys	Arg	Tyr	Asp	Ile	Pro	Thr	Lys	Lys	Ala	Pro	Lys	Leu	Leu	Leu	Lys
	210					215					220				
Arg	Asp	Gly	Asp	Leu	Lys	Gly	Ser	Ser	Val	Gly	His	Lys	Asp	Leu	Glu
225					230					235					240
Phe	Thr	Phe	Val	Glu	Asn	Lys	Lys	Glu	Asn	Ile	Phe	Phe	Thr	Asp	Ser
			245					250						255	
Ile	Asn	Phe	Lys	Pro	Thr	Glu	Arg	Asp	Glu	Ser					
		260						265							

<210> 4490

<211> 222

<212> PRT

<213> S.epidermidis

<400> 4490

Thr	Glu	Arg	Trp	Ser	Ile	Asn	Met	Glu	Gly	Asn	Leu	Ile	Gln	Gln	Leu
1				5					10					15	
Val	His	Tyr	Tyr	Gln	Met	Asn	Phe	Gly	Tyr	Leu	Trp	Glu	Leu	Phe	Val
			20					25					30		
Asn	His	Leu	Leu	Met	Ser	Val	Tyr	Gly	Val	Leu	Leu	Ala	Cys	Leu	Val
		35					40					45			
Gly	Ile	Pro	Leu	Gly	Ile	Ile	Ile	Ala	Arg	Phe	Gly	Lys	Leu	Ser	Gly

50		55		60
Val Ile Ile Thr Ile Ala Asn Ile Ile Gln Thr Val Pro Val Ile Ala				
65		70		75
Met Leu Ala Ile Leu Met Leu Ser Met Gly Leu Gly Met Asn Thr Val				
	85		90	
Ile Phe Thr Val Phe Leu Tyr Ala Leu Leu Pro Ile Ile Lys Asn Thr				
	100		105	
Tyr Thr Gly Ile Asn Glu Val Asp Pro Asn Ile Lys Asp Ala Gly Lys				
	115		120	
Gly Met Gly Met Thr Arg Asn Gln Val Leu Thr Met Ile Glu Leu Pro				
	130		135	
Leu Ser Leu Ser Val Ile Ile Gly Gly Ile Arg Ile Ala Leu Val Val				
145		150		155
Ala Ile Gly Val Val Ala Val Gly Ser Phe Ile Gly Ala Pro Thr Leu				
	165		170	
Gly Asp Ile Val Ile Arg Gly Thr Asn Ala Thr Asp Gly Thr Leu Phe				
	180		185	
Ile Leu Ala Gly Ala Ile Pro Ile Val Ile Ile Val Ile Leu Ile Asp				
	195		200	
Val Leu Leu Arg Leu Leu Glu Lys Lys Leu Asp Pro Ala Thr				
210		215		220

<210> 4491

<211> 43

<212> PRT

<213> S.epidermidis

<400> 4491

Lys Ser Leu Leu Asn Gln Tyr Val Phe Glu Tyr Phe Ser Asn His Pro
1
5
10
15

Thr Ser Lys Phe Lys Val Leu Arg Lys Ile Ile Ile Lys Glu Tyr Lys
20
25
30

Gly Glu Leu Met Leu Ser Ile Gln Lys Gln Arg
35
40

<210> 4492

<211> 49

<212> PRT

<213> S.epidermidis

<400> 4492

Asp Leu Ile Arg Glu Tyr Met Leu Ala Ser Ile Ile Pro Thr Ile Leu
1
5
10
15

Leu Lys Val Ile Lys Gly Ala Ser Thr Gly Val Lys His Ala Ser Thr
20
25
30

Thr Ala Ser Gly Ser Ala Thr Pro Leu His Ser Ile Lys Met Ile Ser
35
40
45

Gly

<210> 4493

<211> 320

<212> PRT

<213> S.epidermidis

<400> 4493

Ile Ala Met Leu Lys Arg Thr Ile Lys Phe Ile Leu Tyr Leu Ile Val
 1 5 10 15
 Ser Ser Phe Ile Ile Phe Ile Leu Val Glu Lys Thr Ser Gly Asn Pro
 20 25 30
 Ala Ile Leu Tyr Leu Gln Arg His Gly Tyr Thr Ser Ile Thr Gln Asp
 35 40 45
 Asn Ile Glu Ala Ala Gln His Gln Leu Gly Leu Gly Gln His Val Leu
 50 55 60
 Leu Arg Tyr Ile Asp Trp Val Gly His Ala Leu Thr Gly Asn Leu Gly
 65 70 75 80
 Tyr Gly Phe Ser Thr Asn Glu Ala Val Thr Ala Met Ile Met Glu Ala
 85 90 95
 Ile Val Pro Thr Leu Val Leu Ile Ile Val Ser Ser Cys Ile Met Leu
 100 105 110
 Pro Phe Gly Tyr Ile Val Gly Tyr Phe Val Gly Thr Arg Pro His Thr
 115 120 125
 Arg Tyr Ala Asn Gly Ile Arg Gly Phe Ala Gln Val Met Thr Ser Met
 130 135 140
 Pro Glu Tyr Trp Leu Ala Ile Leu Phe Ile Tyr Tyr Leu Gly Val Arg
 145 150 155 160
 Trp Gln Leu Leu Pro Phe Val Gly Ser Asp Ser Trp Gln His Phe Val
 165 170 175
 Leu Pro Ile Phe Thr Ile Val Val Ile Glu Gly Cys His Ile Leu Leu
 180 185 190
 Met Thr Ala His Leu Ile Thr Gln Thr Leu Asp Gln Asp Ala Tyr Gln
 195 200 205
 Leu Ala Gln Leu Arg His Phe Ser Leu Lys Ala Arg Ile Ile Val Gln
 210 215 220
 Ile Lys Glu Ile Phe Ala Pro Leu Met Thr Ile Ser Ile Asn Ser Ile
 225 230 235 240
 Ile His Leu Ile Gly Lys Ala Val Ile Leu Glu Val Ile Phe Ser Met
 245 250 255
 Ser Gly Ile Gly Lys Leu Leu Ile Asn Ala Ile Asn Gln Arg Asp Tyr
 260 265 270
 Pro Leu Ile Gln Gly Ile Val Ile Phe Ile Ile Val Phe Ile Met Leu
 275 280 285
 Met Asn Tyr Leu Gly Asp Val Ile Ile Leu Lys Asn Glu Pro Arg Leu
 290 295 300
 Arg Arg Arg His Thr Gln Gln Ser Gly Asn Glu Lys Arg Gly Thr Met
 305 310 315 320

<210> 4494

<211> 109

<212> PRT

<213> S.epidermidis

<400> 4494

Lys Gly Val Leu Met His Asn Tyr Asn Asn Ile Asn Ile Val Ser Asp
 1 5 10 15
 Asp Ser Lys Tyr Gln Glu Ile Cys Trp Phe His Thr Leu Glu Gly Ile
 20 25 30
 Trp His Pro Val Glu Val Glu Thr Ser Pro Leu Asn Ile Thr Phe Asn
 35 40 45
 Lys Asp Ile Thr Pro Asn Tyr Val Cys Thr Leu Ile Asn Glu Asp Ser
 50 55 60
 Arg Lys Ile Ile Leu Ser Asn Val Asp Asn Pro Asn Ile Ile Ile Glu

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<210> 4495
<211> 42
<212> PRT
<213> S.epidermidis
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<210> 4496
<211> 344
<212> PRT
<213> S.epidermidis
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<400>	4496														
Ile	Leu	Lys	Arg	Asn	Asn	Phe	Asp	Leu	Gly	Asp	Val	His	Met	Tyr	Lys
1				5					10					15	
Lys	Gly	Leu	Ile	Leu	Phe	Phe	Val	Ala	Val	Leu	Thr	Leu	Ala	Leu	Ala
			20					25					30		
Ala	Cys	Gly	Lys	Asp	Ser	His	Asn	Gln	Ser	Ser	Asp	His	Lys	Gly	Lys
		35					40					45			
Leu	Asp	Val	Asn	Thr	Thr	Val	Tyr	Pro	Leu	Lys	Ser	Phe	Ala	Gln	Gln
	50					55					60				
Ile	Gly	Gly	Lys	Tyr	Val	Asn	Val	Glu	Ser	Val	Tyr	Pro	Lys	Gly	Val
65				70						75					80
Asp	Pro	His	Thr	Tyr	Asp	Pro	Ser	Gln	Lys	Gln	Met	Val	Asp	Ile	Gly
				85					90					95	
Lys	Ser	Asp	Leu	Phe	Leu	Tyr	Thr	Gly	Asp	Asn	Leu	Asp	Pro	Val	Ala
			100					105					110		
Lys	Lys	Ile	Ala	Lys	Ala	Ile	Asn	Asp	Lys	Asp	Lys	Thr	Leu	Ser	Leu
		115					120					125			
Glu	Ser	Thr	Leu	Asp	Lys	Asn	Lys	Asp	Leu	Leu	Lys	Gly	Glu	Glu	His
	130					135					140				
Glu	His	Glu	His	Gly	Glu	Gly	His	Glu	His	Gly	Glu	Ser	His	Glu	Asp
145				150						155					160
Glu	His	Glu	His	Glu	His	His	His	His	Gly	Lys	Tyr	Asp	Pro	His	Ile
				165					170					175	
Trp	Leu	Asp	Pro	Val	Val	Ser	Gln	Lys	Phe	Ala	Lys	Ala	Ile	Lys	Asp
			180					185					190		
Glu	Leu	Ile	Glu	Lys	Asp	Ser	Lys	His	Lys	Ser	Tyr	Tyr	Glu	Lys	Asn
		195					200					205			
Tyr	Asn	Gln	Leu	Val	Lys	Glu	Leu	Lys	Asp	Leu	Asp	Lys	Asp	Met	Lys
	210					215					220				
His	Ala	Val	Lys	Gly	Asn	Glu	Asp	Lys	Thr	Val	Tyr	Ile	Ser	His	Asp
225				230						235					240
Ser	Ile	Gly	Tyr	Leu	Ala	Glu	Arg	Tyr	His	Phe	Glu	Gln	Glu	Gly	Ile

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<210> 4497
<211> 64
<212> PRT
<213> S.epidermidis
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<210> 4498
<211> 47
<212> PRT
<213> S.epidermidis
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<210> 4499
<211> 466
<212> PRT
<213> S.epidermidis
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<400> 4499															
Arg	Lys	Ser	Arg	Arg	Pro	Leu	Thr	Met	Ser	Glu	Gln	Phe	Asn	Lys	Gly
1				5					10					15	
Lys	Gln	Leu	Ile	Val	Ala	Ile	Ile	Leu	Gly	Ile	Leu	Thr	Tyr	Trp	Leu
			20					25					30		
Phe	Ala	Gln	Ser	Phe	Leu	Asn	Ile	Ala	Pro	His	Val	Gln	Arg	Phe	Tyr
		35					40					45			
His	Val	Asp	Met	Ser	Ile	Val	Asn	Ile	Ala	Val	Ser	Leu	Thr	Ser	Leu
	50					55					60				

<210>	4500
<211>	47
<212>	PRT

<213> S.epidermidis

<400> 4500

Ile	Phe	Lys	Arg	Tyr	Ile	Val	Ala	Val	Lys	Ser	Ser	Val	Ser	Asn	Leu
1				5					10					15	
Lys	Leu	Tyr	Leu	Ile	Met	His	Lys	Asn	Asn	Asn	Phe	Ser	Thr	Asn	Ile
			20					25					30		
Leu	Thr	Thr	Phe	Asp	Ile	Ser	Gln	Ser	Tyr	Tyr	Tyr	His	His	Val	
		35					40					45			

<210> 4501

<211> 50

<212> PRT

<213> S.epidermidis

<400> 4501

Lys	Arg	Gly	Arg	Asn	Arg	Val	Lys	Val	Gln	Ser	Ile	Val	Glu	Ile	Lys
1				5					10					15	
Asn	Leu	Glu	Asn	Gly	Asn	Ile	Ser	Gln	Glu	Ile	Asp	Asn	Val	Ser	Ile
			20					25					30		
Leu	Lys	Ala	Ser	Val	Val	Phe	Val	Cys	Leu	Thr	Leu	Ile	Leu	Leu	Cys
		35					40					45			
Ile	Leu														
	50														

<210> 4502

<211> 41

<212> PRT

<213> S.epidermidis

<400> 4502

Ile	Gly	Met	Ser	Asn	Ala	Gly	Leu	Thr	Ile	Val	Ile	Tyr	Thr	Ser	Ile
1				5					10					15	
Glu	Glu	Thr	Ala	Glu	Ser	Val	Asn	Thr	Leu	Phe	Leu	Asn	Thr	Arg	Ile
			20					25					30		
Phe	Asn	Asn	Gly	Cys	Phe	Asn	Leu	Ser							
		35					40								

<210> 4503

<211> 315

<212> PRT

<213> S.epidermidis

<400> 4503

Lys	Glu	Val	Ser	Glu	Met	Ala	Lys	Ile	Val	Val	Ala	Leu	Gly	Gly	Asn
1				5					10					15	
Ala	Leu	Gly	Lys	Ser	Pro	Gln	Glu	Gln	Leu	Glu	Leu	Val	Lys	Asn	Thr
			20					25					30		
Ala	Lys	Ser	Leu	Val	Gly	Leu	Ile	Thr	Lys	Gly	His	Glu	Ile	Val	Ile
		35					40					45			
Ser	His	Gly	Asn	Gly	Pro	Gln	Val	Gly	Ser	Ile	Asn	Leu	Gly	Leu	Asn
	50					55					60				
Tyr	Ala	Ala	Glu	His	Asp	Gln	Gly	Pro	Ala	Phe	Pro	Phe	Ala	Glu	Cys
65					70					75				80	
Gly	Ala	Met	Ser	Gln	Ala	Tyr	Ile	Gly	Tyr	Gln	Leu	Gln	Glu	Ser	Leu
				85					90					95	

Gln Asn Glu Leu His Ser Met Gly Ile Asp Lys Gln Val Val Thr Leu
 100 105 110
 Val Thr Gln Val Glu Val Asp Glu Gly Asp Pro Ala Phe Asn Ser Pro
 115 120 125
 Ser Lys Pro Ile Gly Leu Phe Tyr Thr Lys Glu Glu Ala Asn Arg Ile
 130 135 140
 Gln Gln Glu Lys Gly Tyr Gln Phe Val Glu Asp Ala Gly Arg Gly Tyr
 145 150 155 160
 Arg Arg Val Val Pro Ser Pro Gln Pro Ile Ser Ile Ile Glu Leu Glu
 165 170 175
 Ser Ile Lys Thr Leu Val Glu Asn Asp Thr Leu Val Ile Ala Ala Gly
 180 185 190
 Gly Gly Gly Ile Pro Val Ile Arg Glu Gln His Asp Ser Phe Lys Gly
 195 200 205
 Ile Asp Ala Val Ile Asp Lys Asp Lys Thr Ser Ala Leu Leu Gly Ala
 210 215 220
 Asp Ile His Cys Asp Gln Leu Ile Ile Leu Thr Ala Ile Asp Tyr Val
 225 230 235 240
 Tyr Ile Asn Tyr His Thr Asp Gln Gln Gln Ala Leu Lys Thr Thr Asn
 245 250 255
 Ile Asp Thr Leu Lys Thr Tyr Ile Glu Glu Lys Gln Phe Ala Lys Gly
 260 265 270
 Ser Met Leu Pro Lys Ile Glu Ser Ala Ile Ser Phe Ile Glu Asn Asn
 275 280 285
 Pro Asn Gly Ser Val Leu Ile Thr Ser Leu Asn Gln Leu Asp Ala Ala
 290 295 300
 Leu Glu Gly Lys Ile Gly Thr Leu Ile Thr Lys
 305 310 315

<210> 4504

<211> 111

<212> PRT

<213> S.epidermidis

<400> 4504

Ile Ile Arg Arg Phe Phe Ser Met Lys Arg Ala Ser Tyr Ser Val Glu
 1 5 10 15
 Thr Lys Tyr Lys Ala Val Glu Met Lys Ala Ala Gly Phe Ser Thr Lys
 20 25 30
 Glu Ile Met Lys Glu Leu Asn Ile Arg Asn Arg Thr Gln Val Lys Thr
 35 40 45
 Trp Trp Arg Trp Tyr Arg Asn Gly Glu Ser Tyr Arg Phe Ser Gln Gln
 50 55 60
 Val Gly Lys Gln Tyr Thr Tyr Gly Lys Gly Leu Glu Glu Leu Ser Glu
 65 70 75 80
 Val Glu Gln Leu Lys Leu Glu Asn Lys Arg Lys Asp Ile Glu Leu Asp
 85 90 95
 Ile Leu Lys Lys Tyr Lys Ala Leu Glu Arg Lys Trp Tyr Gln Gln
 100 105 110

<210> 4505

<211> 81

<212> PRT

<213> S.epidermidis

<400> 4505

Tyr Asn Arg Arg Asn Ser Lys Met Lys Val Tyr Lys Leu Asn Tyr Gln
 1 5 10 15
 His His Lys Asp Ile Val Asp Asp Asn Val Leu Thr Met Phe Val Thr
 20 25 30
 Ala Asp Asn Gln Asp Glu Val Glu Ala Phe Ala Lys Lys Leu His Tyr
 35 40 45
 Lys Ile Glu His Leu Ser Pro Leu Thr Lys Lys Glu Phe Glu Asp Glu
 50 55 60
 Lys Ala Lys Asp Ser His Tyr Arg Leu Glu His Val Asp His Tyr Leu
 65 70 75 80
 Asn

<210> 4506

<211> 997

<212> PRT

<213> S.epidermidis

<400> 4506

Ile His Gly Arg Tyr Asn Met Gly Lys Arg Arg Gln Gly Pro Ile Asn
 1 5 10 15
 Lys Lys Val Asp Phe Leu Pro Asn Lys Leu Asn Lys Tyr Ser Ile Arg
 20 25 30
 Lys Phe Thr Val Gly Thr Ala Ser Ile Leu Leu Gly Ser Thr Leu Ile
 35 40 45
 Phe Gly Ser Ser Ser His Glu Ala Lys Ala Ala Glu Glu Lys Gln Val
 50 55 60
 Asp Pro Ile Thr Gln Ala Asn Gln Asn Asp Ser Ser Glu Arg Ser Leu
 65 70 75 80
 Glu Asn Thr Asn Gln Pro Thr Val Asn Asn Glu Ala Pro Gln Met Ser
 85 90 95
 Ser Thr Leu Gln Ala Glu Glu Gly Ser Asn Ala Glu Ala Pro Gln Ser
 100 105 110
 Glu Pro Thr Lys Ala Glu Glu Gly Gly Asn Ala Glu Ala Pro Gln Ser
 115 120 125
 Glu Pro Thr Lys Ala Glu Glu Gly Gly Asn Ala Glu Ala Pro Gln Ser
 130 135 140
 Glu Pro Thr Lys Ala Glu Glu Gly Gly Asn Ala Glu Ala Pro Gln Ser
 145 150 155 160
 Glu Pro Thr Lys Ala Glu Glu Gly Gly Asn Ala Glu Ala Pro Gln Ser
 165 170 175
 Glu Pro Thr Lys Thr Glu Glu Gly Ser Asn Ala Glu Ala Pro Asn Val
 180 185 190
 Pro Thr Ile Lys Ala Asn Ser Asp Asn Asp Thr Gln Thr Gln Phe Ser
 195 200 205
 Glu Ala Pro Thr Arg Asn Asp Leu Ala Arg Lys Glu Asp Ile Pro Ala
 210 215 220
 Val Ser Lys Asn Glu Glu Leu Gln Ser Ser Gln Pro Asn Thr Asp Ser
 225 230 235 240
 Lys Ile Glu Pro Thr Ser Glu Pro Val Asn Leu Asn Tyr Ser Ser
 245 250 255
 Pro Phe Met Ser Leu Leu Ser Met Pro Ala Asp Ser Ser Ser Asn Asn
 260 265 270
 Thr Lys Asn Thr Ile Asp Ile Pro Pro Thr Thr Val Lys Gly Arg Asp
 275 280 285
 Asn Tyr Asp Phe Tyr Gly Arg Val Asp Ile Glu Ser Asn Pro Thr Asp

290	295	300
Leu Asn Ala Thr Asn Leu Thr Arg Tyr Asn Tyr Gly Gln Pro Pro Gly		
305	310	315
Thr Thr Thr Ala Gly Ala Val Gln Phe Lys Asn Gln Val Ser Phe Asp		320
	325	330
Lys Asp Phe Asp Phe Asn Ile Arg Val Ala Asn Asn Arg Gln Ser Asn		335
	340	345
Thr Thr Gly Ala Asp Gly Trp Gly Phe Met Phe Ser Lys Lys Asp Gly		350
	355	360
Asp Asp Phe Leu Lys Asn Gly Gly Ile Leu Arg Glu Lys Gly Thr Pro		365
	370	375
Ser Ala Ala Gly Phe Arg Ile Asp Thr Gly Tyr Tyr Asn Asn Asp Pro		380
385	390	395
Leu Asp Lys Ile Gln Lys Gln Ala Gly Gln Gly Tyr Arg Gly Tyr Gly		400
	405	410
Thr Phe Val Lys Asn Asp Ser Gln Gly Asn Thr Ser Lys Val Gly Ser		415
	420	425
Gly Thr Pro Ser Thr Asp Phe Leu Asn Tyr Ala Asp Asn Thr Thr Asn		430
	435	440
Asp Leu Asp Gly Lys Phe His Gly Gln Lys Leu Asn Asn Val Asn Leu		445
	450	455
Lys Tyr Asn Ala Ser Asn Gln Thr Phe Thr Ala Thr Tyr Ala Gly Lys		460
465	470	475
Thr Trp Thr Ala Thr Leu Ser Glu Leu Gly Leu Ser Pro Thr Asp Ser		480
	485	490
Tyr Asn Phe Leu Val Thr Ser Ser Gln Tyr Gly Asn Gly Asn Ser Gly		495
	500	505
Thr Tyr Ala Ser Gly Val Met Arg Ala Asp Leu Asp Gly Ala Thr Leu		510
	515	520
Thr Tyr Thr Pro Lys Ala Val Asp Gly Asp Pro Ile Ile Ser Thr Lys		525
	530	535
Glu Ile Pro Phe Asn Lys Lys Arg Glu Phe Asp Pro Asn Leu Ala Pro		540
545	550	555
Gly Thr Glu Lys Val Val Gln Lys Gly Glu Pro Gly Ile Glu Thr Thr		560
	565	570
Thr Thr Pro Thr Tyr Val Asn Pro Asn Thr Gly Glu Lys Val Gly Glu		575
	580	585
Gly Glu Pro Thr Glu Lys Ile Thr Lys Gln Pro Val Asp Glu Ile Val		590
	595	600
His Tyr Gly Gly Glu Glu Ile Lys Pro Gly His Lys Asp Glu Phe Asp		605
	610	615
Pro Asn Ala Pro Lys Gly Ser Gln Thr Thr Gln Pro Gly Lys Pro Gly		620
625	630	635
Val Lys Asn Pro Asp Thr Gly Glu Val Val Thr Pro Pro Val Asp Asp		640
	645	650
Val Thr Lys Tyr Gly Pro Val Asp Gly Asp Pro Ile Thr Ser Thr Glu		655
	660	665
Glu Ile Pro Phe Asp Lys Lys Arg Glu Phe Asn Pro Asp Leu Lys Pro		670
	675	680
Gly Glu Glu Arg Val Lys Gln Lys Gly Glu Pro Gly Thr Lys Thr Ile		685
	690	695
Thr Thr Pro Thr Thr Lys Asn Pro Leu Thr Gly Glu Lys Val Gly Glu		700
705	710	715
Gly Glu Pro Thr Glu Lys Val Thr Lys Gln Pro Val Asp Glu Ile Thr		720
	725	730
Glu Tyr Gly Gly Glu Glu Ile Lys Pro Gly His Lys Asp Glu Phe Asp		735


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              740              745              750
Pro Asn Ala Pro Lys Gly Ser Gln Glu Asp Val Pro Gly Lys Pro Gly
              755              760              765
Val Lys Asn Pro Asp Thr Gly Glu Val Val Thr Pro Pro Val Asp Asp
              770              775              780
Val Thr Lys Tyr Gly Pro Val Asp Gly Asp Pro Ile Thr Ser Thr Glu
785              790              795              800
Glu Ile Pro Phe Asp Lys Lys Arg Glu Phe Asp Pro Asn Leu Ala Pro
              805              810              815
Gly Thr Glu Lys Val Val Gln Lys Gly Glu Pro Gly Thr Lys Thr Ile
              820              825              830
Thr Thr Pro Thr Thr Lys Asn Pro Leu Thr Gly Glu Lys Val Gly Glu
              835              840              845
Gly Glu Pro Thr Glu Lys Val Thr Lys Gln Pro Val Asp Glu Ile Val
              850              855              860
His Tyr Gly Gly Glu Glu Ile Lys Pro Gly His Lys Asp Glu Phe Asp
865              870              875              880
Pro Asn Ala Pro Lys Gly Ser Gln Glu Asp Val Pro Gly Lys Pro Gly
              885              890              895
Val Lys Asn Pro Asp Thr Gly Glu Val Val Thr Pro Pro Val Asp Asp
              900              905              910
Val Thr Lys Tyr Gly Pro Val Asp Gly Asp Pro Ile Thr Ser Thr Glu
              915              920              925
Glu Ile Pro Phe Asp Lys Lys Arg Glu Phe Asp Pro Asn Leu Ala Pro
              930              935              940
Gly Thr Glu Lys Val Val Gln Lys Gly Glu Pro Gly Thr Lys Thr Ile
945              950              955              960
Thr Thr Pro Thr Thr Lys Asn Pro Leu Thr Gly Glu Lys Val Gly Glu
              965              970              975
Gly Glu Pro Thr Glu Lys Ile Thr Lys Gln Pro Val Asp Glu Ile Thr
              980              985              990
Glu Tyr Gly Gly Glu
              995

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<210> 4507

<211> 64

<212> PRT

<213> S.epidermidis

<400> 4507

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Arg Ile Tyr Gly Tyr Trp Ser Leu Ile Pro Lys Phe Ser Tyr Tyr Ile
1              5              10              15
Phe Asn Glu Ile Pro Cys His Phe His Ile Phe Asn Ser Ile Asn Asn
              20              25              30
Tyr Ile Ile Phe Leu Lys Ile Lys Tyr Ile Lys Ile Phe Phe Phe Ile
              35              40              45
Phe Asn Ile Ile Ile Ser Val Tyr Leu Pro Thr Leu Pro Leu Ala Leu
              50              55              60

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<210> 4508

<211> 105

<212> PRT

<213> S.epidermidis

<400> 4508

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Ser Ser His Gly Thr Ile Cys Phe Lys Pro Ser Leu Ile Ile Leu Ser

```

1		5		10		15									
Ser	Ser	Gln	Ile	Thr	Thr	Leu	Asn	Ile	Phe	Ile	Pro	Pro	Arg	Gln	Val
		20						25					30		
Val	Phe	Gly	Asn	Thr	Leu	Met	Ser	Leu	Ala	Gly	Phe	Leu	Arg	Lys	Cys
		35					40					45			
Ala	Asp	Val	His	Met	Phe	His	Ile	Glu	Ser	Trp	Leu	Tyr	Tyr	Val	Asn
		50				55					60				
Asp	Leu	Asn	Leu	Gly	Val	Ser	Tyr	Gln	Lys	His	Arg	Asp	Glu	Gly	Ile
65					70					75					80
Gly	Ala	Arg	Val	Leu	Asn	Val	Met	Glu	Thr	Tyr	Arg	Cys	His	Tyr	His
			85					90						95	
Glu	Pro	Glu	Tyr	Val	Ile	Cys	Ala	Ser							
		100						105							

<210> 4509

<211> 1081

<212> PRT

<213> S.epidermidis

<400> 4509

Ile	Lys	Pro	Gly	His	Lys	Asp	Glu	Phe	Asp	Pro	Asn	Ala	Pro	Lys	Gly
1				5				10					15		
Ser	Gln	Glu	Asp	Val	Pro	Gly	Lys	Pro	Gly	Val	Lys	Asn	Pro	Asp	Thr
		20					25					30			
Gly	Glu	Val	Val	Thr	Pro	Pro	Val	Asp	Asp	Val	Thr	Lys	Tyr	Gly	Pro
		35				40					45				
Val	Asp	Gly	Asp	Pro	Ile	Thr	Ser	Thr	Glu	Glu	Ile	Pro	Phe	Asp	Lys
	50				55					60					
Lys	Arg	Glu	Phe	Asn	Pro	Asp	Leu	Lys	Pro	Gly	Glu	Glu	Arg	Val	Lys
65				70					75						80
Gln	Lys	Gly	Glu	Pro	Gly	Thr	Lys	Thr	Ile	Thr	Thr	Pro	Thr	Thr	Lys
			85					90						95	
Asn	Pro	Leu	Thr	Gly	Glu	Lys	Val	Gly	Glu	Gly	Glu	Pro	Thr	Glu	Lys
		100						105					110		
Val	Thr	Lys	Gln	Pro	Val	Asp	Glu	Ile	Thr	Glu	Tyr	Gly	Gly	Glu	Glu
		115				120						125			
Ile	Lys	Pro	Gly	His	Lys	Asp	Glu	Phe	Asp	Pro	Asn	Ala	Pro	Lys	Gly
	130				135					140					
Ser	Gln	Glu	Asp	Val	Pro	Gly	Lys	Pro	Gly	Val	Lys	Asn	Pro	Asp	Thr
145				150					155						160
Gly	Glu	Val	Val	Thr	Pro	Pro	Val	Asp	Asp	Val	Thr	Lys	Tyr	Gly	Pro
			165					170						175	
Val	Asp	Gly	Asp	Pro	Ile	Thr	Ser	Thr	Glu	Glu	Ile	Pro	Phe	Asp	Lys
		180				185						190			
Lys	Arg	Glu	Phe	Asp	Pro	Asn	Leu	Ala	Pro	Gly	Thr	Glu	Lys	Val	Val
		195				200						205			
Gln	Lys	Gly	Glu	Pro	Gly	Thr	Lys	Thr	Ile	Thr	Thr	Pro	Thr	Thr	Lys
	210				215					220					
Asn	Pro	Leu	Thr	Gly	Glu	Lys	Val	Gly	Glu	Gly	Glu	Pro	Thr	Glu	Lys
225				230					235						240
Val	Thr	Lys	Gln	Pro	Val	Asp	Glu	Ile	Val	His	Tyr	Gly	Gly	Glu	Glu
			245					250						255	
Ile	Lys	Pro	Gly	His	Lys	Asp	Glu	Phe	Asp	Pro	Asn	Ala	Pro	Lys	Gly
		260				265						270			
Ser	Gln	Glu	Asp	Val	Pro	Gly	Lys	Pro	Gly	Val	Lys	Asn	Pro	Asp	Thr
		275					280					285			

Gly	Glu	Val	Val	Thr	Pro	Pro	Val	Asp	Asp	Val	Thr	Lys	Tyr	Gly	Pro
290						295					300				
Val	Asp	Gly	Asp	Pro	Ile	Thr	Ser	Thr	Glu	Glu	Ile	Pro	Phe	Asp	Lys
305					310					315					320
Lys	Arg	Glu	Phe	Asp	Pro	Asn	Leu	Ala	Pro	Gly	Thr	Glu	Lys	Val	Val
				325					330					335	
Gln	Lys	Gly	Glu	Pro	Gly	Thr	Lys	Thr	Ile	Thr	Thr	Pro	Thr	Thr	Lys
			340					345					350		
Asn	Pro	Leu	Thr	Gly	Glu	Lys	Val	Gly	Glu	Gly	Glu	Pro	Thr	Glu	Lys
		355					360					365			
Ile	Thr	Lys	Gln	Pro	Val	Asp	Glu	Ile	Val	His	Tyr	Gly	Gly	Glu	Glu
370						375					380				
Ile	Lys	Pro	Gly	His	Lys	Asp	Glu	Phe	Asp	Pro	Asn	Ala	Pro	Lys	Gly
385					390					395					400
Ser	Gln	Thr	Thr	Gln	Pro	Gly	Lys	Pro	Gly	Val	Lys	Asn	Pro	Asp	Thr
				405					410					415	
Gly	Glu	Val	Val	Thr	Pro	Pro	Val	Asp	Asp	Val	Thr	Lys	Tyr	Gly	Pro
			420					425					430		
Val	Asp	Gly	Asp	Pro	Ile	Thr	Ser	Thr	Glu	Glu	Ile	Pro	Phe	Asp	Lys
		435					440					445			
Lys	Arg	Glu	Phe	Asn	Pro	Asp	Leu	Lys	Pro	Gly	Glu	Glu	Arg	Val	Lys
450						455					460				
Gln	Lys	Gly	Glu	Pro	Gly	Thr	Lys	Thr	Ile	Thr	Thr	Pro	Thr	Thr	Lys
465					470					475					480
Asn	Pro	Leu	Thr	Gly	Glu	Lys	Val	Gly	Glu	Gly	Glu	Pro	Thr	Glu	Lys
				485					490					495	
Ile	Thr	Lys	Gln	Pro	Val	Asp	Glu	Ile	Thr	Glu	Tyr	Gly	Gly	Glu	Glu
			500					505					510		
Ile	Lys	Pro	Gly	His	Lys	Asp	Glu	Phe	Asp	Pro	Asn	Ala	Pro	Lys	Gly
		515					520					525			
Ser	Gln	Thr	Thr	Gln	Pro	Gly	Lys	Pro	Gly	Val	Lys	Asn	Pro	Asp	Thr
530						535					540				
Gly	Glu	Val	Val	Thr	Pro	Pro	Val	Asp	Asp	Val	Thr	Lys	Tyr	Gly	Pro
545					550					555					560
Val	Asp	Gly	Asp	Pro	Ile	Thr	Ser	Thr	Glu	Glu	Ile	Pro	Phe	Asp	Lys
				565					570					575	
Lys	Arg	Glu	Phe	Asp	Pro	Asn	Leu	Ala	Pro	Gly	Thr	Glu	Lys	Val	Val
			580					585					590		
Gln	Lys	Gly	Glu	Pro	Gly	Thr	Lys	Thr	Ile	Thr	Thr	Pro	Thr	Thr	Lys
			595				600					605			
Asn	Pro	Leu	Thr	Gly	Glu	Lys	Val	Gly	Glu	Gly	Glu	Pro	Thr	Glu	Lys
610						615					620				
Ile	Thr	Lys	Gln	Pro	Val	Asp	Glu	Ile	Val	His	Tyr	Gly	Gly	Glu	Glu
625					630					635					640
Ile	Lys	Pro	Gly	His	Lys	Asp	Glu	Phe	Asp	Pro	Asn	Ala	Pro	Lys	Gly
				645					650					655	
Ser	Gln	Glu	Asp	Val	Pro	Gly	Lys	Pro	Gly	Val	Lys	Asn	Pro	Asp	Thr
			660					665					670		
Gly	Glu	Val	Val	Thr	Pro	Pro	Val	Asp	Asp	Val	Thr	Lys	Tyr	Gly	Pro
		675					680					685			
Val	Asp	Gly	Asp	Ser	Ile	Thr	Ser	Thr	Glu	Glu	Ile	Pro	Phe	Asp	Lys
690						695					700				
Lys	Arg	Glu	Phe	Asp	Pro	Asn	Leu	Ala	Pro	Gly	Thr	Glu	Lys	Val	Val
705					710					715					720
Gln	Lys	Gly	Glu	Pro	Gly	Thr	Lys	Thr	Ile	Thr	Thr	Pro	Thr	Thr	Lys
				725					730					735	

Asn Pro Leu Thr Gly Glu Lys Val Gly Glu Gly Glu Pro Thr Glu Lys
 740 745 750
 Ile Thr Lys Gln Pro Val Asp Glu Ile Val His Tyr Gly Gly Glu Gln
 755 760 765
 Ile Pro Gln Gly His Lys Asp Glu Phe Asp Pro Asn Ala Pro Val Asp
 770 775 780
 Ser Lys Thr Glu Val Pro Gly Lys Pro Gly Val Lys Asn Pro Asp Thr
 785 790 795 800
 Gly Glu Val Val Thr Pro Pro Val Asp Asp Val Thr Lys Tyr Gly Pro
 805 810 815
 Lys Val Gly Asn Pro Ile Thr Ser Thr Glu Glu Ile Pro Phe Asp Lys
 820 825 830
 Lys Arg Val Phe Asn Pro Asp Leu Lys Pro Gly Glu Glu Arg Val Lys
 835 840 845
 Gln Lys Gly Glu Pro Gly Thr Lys Thr Ile Thr Thr Pro Ile Leu Val
 850 855 860
 Asn Pro Ile Thr Gly Glu Lys Val Gly Glu Gly Lys Ser Thr Glu Lys
 865 870 875 880
 Val Thr Lys Gln Pro Val Asp Glu Ile Val Glu Tyr Gly Pro Thr Lys
 885 890 895
 Ala Glu Pro Gly Lys Pro Ala Glu Pro Gly Lys Pro Ala Glu Pro Gly
 900 905 910
 Lys Pro Ala Glu Pro Gly Thr Pro Ala Glu Pro Gly Lys Pro Ala Glu
 915 920 925
 Pro Gly Thr Pro Ala Glu Pro Gly Lys Pro Ala Glu Pro Gly Lys Pro
 930 935 940
 Ala Glu Pro Gly Lys Pro Ala Glu Pro Gly Thr Pro Ala Glu Pro Gly
 945 950 955 960
 Thr Pro Ala Glu Pro Gly Lys Pro Ala Glu Pro Gly Thr Pro Ala Glu
 965 970 975
 Pro Gly Lys Pro Ala Glu Pro Gly Thr Pro Ala Glu Pro Gly Lys Pro
 980 985 990
 Ala Glu Pro Gly Thr Pro Ala Glu Pro Gly Lys Pro Ala Glu Ser Gly
 995 1000 1005
 Lys Pro Val Glu Pro Gly Lys Pro Val Glu Pro Gly Thr Pro Ala Gln
 1010 1015 1020
 Ser Gly Ala Pro Glu Gln Pro Asn Arg Ser Met His Ser Thr Asp Asn
 1025 1030 1035 1040
 Lys Asn Gln Leu Pro Asp Thr Gly Glu Asn Arg Gln Ala Asn Glu Gly
 1045 1050 1055
 Thr Leu Val Gly Ser Leu Leu Ala Ile Val Gly Ser Leu Phe Ile Phe
 1060 1065 1070
 Gly Arg Arg Lys Lys Gly Asn Glu Lys
 1075 1080

<210> 4510

<211> 375

<212> PRT

<213> S.epidermidis

<400> 4510

Ile Gln Lys Gly Cys Thr Ile Met Ser His His Arg Ile Ile Ile Ile
 1 5 10 15
 Gly Ala Gly Ala Ala Gly Val Gly Met Ala Ile Thr Leu Gln Glu Phe
 20 25 30
 Asn Ile Lys Asp Val Leu Ile Val Glu Lys Gly Thr Ile Gly His Ser

Ala Asn Asp Pro Lys Ser Asp Leu Met Asn Val Asn Gln His Ala Gly
 50 55 60
 Ile Ala Pro Val Lys Val Ser Ser Glu Ile Phe Asn Met Ile Arg Tyr
 65 70 75 80
 Gly Tyr Glu Thr Thr Leu Ser Ser Asn Phe Lys Met Asn Ile Leu Ile
 85 90 95
 Gly Pro Leu Val Lys Leu Trp Lys Ile Gly Phe Lys Asp Ala Leu Lys
 100 105 110
 Pro Lys Glu Val Asp Ile Gln Arg Ala Leu Leu Cys Met Asn Pro Glu
 115 120 125
 Asn Leu Val Leu Asn Ser Lys Thr His Glu Val Phe Leu Thr Gln Ser
 130 135 140
 Gly Met Glu Ile Asp Leu Gly Ala Ile Val Lys Gly Tyr Phe Ala Asp
 145 150 155 160
 Gln Leu Gln Gln Tyr Phe Leu Ala His Gly Val Ser Ser Gly Ile Ile
 165 170 175
 Asp Leu Gly Gly Asn Val Leu Thr Ile Gly Arg Gln Pro Glu Thr Leu
 180 185 190
 Glu Lys Trp His Val Gly Val Arg Asn Pro Phe His Lys Asp Thr Leu
 195 200 205
 Pro Leu Val Thr Leu Ser Val Glu His Gln Ser Val Val Thr Ser Gly
 210 215 220
 Ile Tyr Glu Arg Tyr Phe Ile Gln Glu Asn Gln Leu Phe His His Ile
 225 230 235 240
 Leu Asp Ser Thr Thr Gly Tyr Pro Val Asp Asn Asp Ile Ala Ser Val
 245 250 255
 Thr Ile Ile Ser Asp His Gly Ile Asp Gly Glu Val Trp Ser Thr Ile
 260 265 270
 Cys Ser Phe Gly Gln Ser Gln Lys Asn Ile Glu Leu Leu Asn Leu Ile
 275 280 285
 Asp Gly Ile Glu Gly Ile Ile Val Thr Arg Asp Gly Ser Val Leu Met
 290 295 300
 Thr Ser Lys Met Gln Lys Tyr Leu
 305 310

<210> 4512

<211> 327

<212> PRT

<213> S.epidermidis

<400> 4512

Trp Asp Ile Met Lys Val Lys Leu Tyr Thr Leu Leu Leu Leu Leu Ile
 1 5 10 15
 Phe Leu Ile Ala Cys Ala Pro Thr Ser Thr Ser Gln Ser Pro His Pro
 20 25 30
 Leu Arg Thr Leu Ile Val Tyr Ser Pro Tyr Pro Ser His Leu Ile Arg
 35 40 45
 Pro Ile Leu Asn Asp Phe Glu Lys Arg Glu His Val Lys Val Glu Ile
 50 55 60
 Lys His Gly Ser Thr Gln Val Leu Leu Ser Asn Ile His Lys Glu Ala
 65 70 75 80
 Leu Ser Lys Arg Gly Asp Val Phe Val Gly Gly Val Leu Ser Glu Met
 85 90 95
 Ile Asp His Gln Glu Asp Phe Val Pro Tyr His Asn Arg Ser Thr Leu
 100 105 110
 Lys Gln Ile Glu Asp Tyr Arg Ser Asn Asn Pro Leu Val Thr Ser Phe

Ala Gly Thr Ser Phe Asp Pro Tyr Tyr Leu Val Glu Gln Ala Ile Asp
 180 185 190
 Asn Gly Gln Ala Leu Pro Gln Leu Tyr Ile Thr Cys Gly Thr Glu Asp
 195 200 205
 Glu Leu Tyr Gln Gly Asn Ile Asp Phe Val Asn Tyr Leu Asp Glu Lys
 210 215 220
 Gly Ile Pro Tyr Gln Phe Lys Lys Ala Pro Gly Asn His Asp Tyr Ala
 225 230 235 240
 Phe Trp Asp Lys Ala Ile Glu Asp Val Ile Asp Arg Phe Thr Ser Ser
 245 250 255
 His Ile

<210> 4514

<211> 130

<212> PRT

<213> S.epidermidis

<400> 4514

Leu Val Tyr Ile Ile Asn Ile Leu Ile Phe Lys Ile Leu Gly Asp Ala
 1 5 10 15
 Gln Met Leu Lys Ile Asn Phe Phe Asn Lys Glu Tyr Gly Val Leu Lys
 20 25 30
 Ser Gln Asn Tyr Glu Arg Ile Ser Leu Glu Leu Leu Asn Lys His Tyr
 35 40 45
 His Ile Thr Glu Asn Asp Phe Lys Asn Lys Asp Tyr Cys Leu Asp Lys
 50 55 60
 Phe Asn Ser Lys Asp Thr Phe Ile Gly Asp Ile Ala His Thr Glu Lys
 65 70 75 80
 Glu Leu Ile Ser Leu Ile Glu Asp Asn Ile Lys Asn Pro Lys Asn Met
 85 90 95
 Glu His Gln Asn Leu Ser Ser Ile Phe Asp Tyr Thr Asp His His Asn
 100 105 110
 Asn Gln Arg Val Tyr His Ser Ile Leu Asp Leu Ile Gln Asp Asn Thr
 115 120 125
 Ser Ser
 130

<210> 4515

<211> 257

<212> PRT

<213> S.epidermidis

<400> 4515

Ser Pro Tyr Ile His Gly Tyr Tyr Leu Tyr Gly Ser Asp Arg Tyr Tyr
 1 5 10 15
 Ile Phe Met Asp Ser Ile Val Lys Glu Ser Tyr Ser Met Ile Asp Ile
 20 25 30
 Gln Asn Val Ser Lys Ser Tyr Lys Lys His Ile Phe Asp Ser Leu
 35 40 45
 Asp Met Gln Phe Gln Asn His Lys Ile Thr Ile Leu Leu Gly Glu Asn
 50 55 60
 Gly Ala Gly Lys Ser Thr Leu Leu Arg Leu Ile Ala Gly Ile Glu Asn
 65 70 75 80
 Ala Asp Glu Gly Arg Ile Gln Tyr Phe Asn Gln Tyr Leu Ser Arg Arg
 85 90 95

Arg Ile Arg His Ile Val Gly Tyr Val Pro Gln Asp Ile Ala Leu Phe
 100 105 110
 Glu His Met Thr Val Met Glu Asn Ile Glu Phe Phe Lys Ser Leu Cys
 115 120 125
 Glu Asn Pro Ile Ser Asp Glu Thr Leu His Ser Tyr Leu Ser Gln Leu
 130 135 140
 Asn Phe Thr Asp Thr Lys Val Lys Val Ser Asn Leu Ser Gly Gly Asn
 145 150 155 160
 Lys Arg Lys Val Asn Ile Met Ile Gly Leu Leu Ser Arg Pro Lys Ile
 165 170 175
 Leu Ile Leu Asp Glu Pro Thr Glu Asp Ile Asp Leu Glu Ser Arg Tyr
 180 185 190
 Asp Ile His Asn Leu Leu Gln Gln Met Thr Asp Gln Cys Leu Ile Ile
 195 200 205
 Met Thr Thr His His Leu Asp Glu Val Glu Ala Leu Ala Asp Asp Ile
 210 215 220
 Lys Val Ile Gly Gln Asn Pro Phe Tyr His Asp Ile Leu Glu Asn Lys
 225 230 235 240
 Gly Trp Ser Phe Lys Lys Tyr Ala Asn Ala Leu Ala Asp Asn Thr Lys
 245 250 255
 Ser

<210> 4516
 <211> 80
 <212> PRT
 <213> S.epidermidis

<400> 4516
 Thr Tyr His Ile Ile Tyr Val Pro Leu Ser Thr Ser Val Asn Tyr Glu
 1 5 10 15
 Lys Ile Leu Ser Ser Ile Pro Leu Asn Thr Phe Leu Phe Thr
 20 25 30
 Phe Lys Asn Pro Arg Lys Glu Arg Thr Asn Ser Pro Ser Leu Phe Cys
 35 40 45
 Val Val Val Leu Leu Asn Phe Ile Ser Leu Thr Ile Asn Ile Leu Ile
 50 55 60
 Thr Lys Met Met Tyr Leu Lys Thr Ile Ile Ile Leu Lys Tyr Asn Asn
 65 70 75 80

<210> 4517
 <211> 72
 <212> PRT
 <213> S.epidermidis

<400> 4517
 Ile Ile Asn Ile Glu Ala Thr Gln Tyr Glu Gly Arg Ala Val Ser Arg
 1 5 10 15
 Lys Ala Ile Glu Arg Ile Ala Arg Ser Gly Asn Leu Pro Leu Val Lys
 20 25 30
 Ala Leu Thr Met Pro Ser Thr Thr Asp Val Ile Ile Thr Thr Leu
 35 40 45
 Glu Ile Lys Val Ser Phe Asn Val Phe Ile Asn Ala Gly Pro Ile Arg
 50 55 60
 Ser Asp Thr Gly Ser Pro Val Ile
 65 70

<210> 4518
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 <212> PRT
 <213> S.epidermidis

<400> 4518
 Tyr Asn Asn Ile Asn Glu Val Gln Lys Gly Gly Gly Arg Leu Ile Glu
 1 5 10 15
 Lys Val Phe Lys Arg Ile Tyr Phe Ile Phe Ser His Cys Asp Ala Arg
 20 25 30
 Ile Cys Arg Gly Ile Gly Ile Gln Ser Leu
 35 40

<210> 4519
 <211> 131
 <212> PRT
 <213> S.epidermidis

<400> 4519
 Glu Ala Asn Ile Ser Leu Lys Ile Arg Cys Ile Ser Met Lys Arg Leu
 1 5 10 15
 Ile Phe Ile Val Val Ile Leu Phe Ile Gln Ala Cys Ser Tyr Val Val
 20 25 30
 Ile Asn Phe Phe Phe Phe Asp Met Trp Val Ile His Ser Ser Glu Gln
 35 40 45
 Gln Leu Asn Gln Ser Ile Gln His His Asp Thr Lys Gln Leu His Lys
 50 55 60
 Ile Ala Lys Asp Lys Gln Thr Tyr Gln Phe Leu Lys Thr Ile Lys Lys
 65 70 75 80
 Ala Asp Phe Glu Asn Ala Thr Asp Asn Gln Gly Gly Gly Pro Ile Gly
 85 90 95
 Tyr Tyr Arg Leu Asp Ile Asn Lys Lys Pro Val Gly Leu Thr Ile Asn
 100 105 110
 Ile Lys Tyr Asn Phe Leu Pro Glu Lys Thr Thr Ile Lys Ser Ile Lys
 115 120 125
 Leu Tyr Gln
 130

<210> 4520
 <211> 1017
 <212> PRT
 <213> S.epidermidis

<400> 4520
 Cys Glu Asn Ile His Lys Lys Leu Gly Gly Phe Ala Met Ser Lys Glu
 1 5 10 15
 Ile Phe Asp Thr Phe Lys Phe Lys Cys Gly Ala Glu Leu Lys Asn Arg
 20 25 30
 Val Leu Met Ala Pro Met Thr Ile Gln Ala Gly Tyr Phe Asp Gly Ser
 35 40 45
 Val Thr Ser Glu Met Ile Asp Tyr Tyr Gln Phe Arg Ala Gly Asp Ala
 50 55 60
 Ser Ala Ile Ile Val Glu Ser Cys Phe Val Glu Asn His Gly Arg Gly
 65 70 75 80
 Phe Pro Gly Ala Ile Gly Ile Asp Asn Asp Asp Lys Ile Pro Gly Leu

			85					90					95				
Lys	Arg	Leu	Ala	Glu	Ala	Ile	Gln	Ala	Lys	Gly	Ser	Lys	Ala	Ile	Leu		
			100						105						110		
Gln	Leu	Tyr	His	Ala	Gly	Arg	Met	Ala	Asn	Pro	Lys	Phe	Asn	Glu	Gly		
			115						120						125		
Glu	Gln	Pro	Ile	Ser	Ala	Ser	Pro	Ile	Ala	Ala	Leu	Arg	Pro	Asp	Ala		
			130						135						140		
Val	Pro	Pro	Arg	Glu	Met	Thr	His	Ala	Gln	Ile	Asn	Gln	Met	Ile	Asp		
145									150						155		
Asp	Phe	Gly	Glu	Ala	Thr	Arg	Arg	Ala	Ile	Glu	Ala	Gly	Phe	Asp	Gly		
			165						170						175		
Val	Glu	Ile	His	Gly	Ala	Asn	Thr	Tyr	Leu	Leu	Gln	Gln	Phe	Phe	Ser		
			180						185						190		
Pro	His	Ser	Asn	Arg	Arg	Gln	Asp	Ser	Trp	Gly	Gly	Ser	Arg	Glu	Lys		
			195						200						205		
Arg	Thr	Arg	Phe	Pro	Ile	Glu	Val	Leu	Thr	Lys	Val	Gln	His	Val	Val		
			210						215						220		
Ala	Glu	Lys	Glu	Ala	Ser	His	Phe	Ile	Ile	Gly	Tyr	Arg	Phe	Ser	Pro		
225									230						235		
Glu	Glu	Ile	Glu	Glu	Pro	Gly	Ile	Arg	Phe	Glu	Asp	Thr	Met	Phe	Leu		
			245						250						255		
Leu	Asn	Thr	Leu	Ala	Glu	Tyr	Glu	Pro	Asp	Tyr	Phe	His	Ile	Ser	Ala		
			260						265						270		
Asn	Ser	Tyr	Gln	Arg	Thr	Ser	Ile	Val	Asn	Gln	Glu	Asp	Thr	Glu	Pro		
			275						280						285		
Leu	Ile	Asn	Lys	Tyr	Ile	Lys	Met	Gln	Ser	Ala	Gln	Leu	Ala	Lys	Ile		
			290						295						300		
Pro	Leu	Ile	Gly	Val	Gly	Ser	Ile	Ala	Gln	Arg	Gln	Asp	Ala	Glu	His		
305									310						315		
Ala	Leu	Glu	Leu	Gly	Tyr	Asp	Leu	Leu	Ser	Val	Gly	Lys	Ala	Tyr	Leu		
			325						330						335		
Val	Glu	Pro	Gln	Trp	Thr	Asp	Lys	Ile	Ser	Gln	Asn	Glu	Glu	Val	Glu		
			340						345						350		
Gln	Phe	Val	Asp	Ile	His	Asp	Gln	Lys	Val	Leu	His	Ile	Pro	Ser	Pro		
			355						360						365		
Leu	Trp	Lys	Val	Met	Asp	Phe	Met	Ile	Leu	Asp	Lys	Glu	Glu	Glu	His		
			370						375						380		
Arg	Lys	Tyr	Glu	Lys	Leu	Lys	Ala	Leu	Gln	Asn	Lys	Lys	Val	Lys	Phe		
385									390						395		
Asn	Lys	Gly	Thr	Tyr	His	Val	Tyr	Ala	Lys	Gly	His	Asn	Gly	Asn	Leu		
			405						410						415		
Pro	Met	Lys	Val	Gln	Leu	Ser	Glu	Asp	Lys	Ile	Val	Ser	Ile	Glu	Val		
			420						425						430		
Asp	Asp	Ser	Gly	Glu	Ser	Glu	Gly	Ile	Ala	Asn	Pro	Val	Phe	Glu	Arg		
			435						440						445		
Leu	Pro	Gln	Asp	Ile	Ile	Asn	Gly	Gln	Thr	Leu	Asn	Val	Asp	Val	Ile		
			450						455						460		
Ser	Gly	Ala	Thr	Val	Thr	Ser	Glu	Gly	Ile	Val	Gln	Gly	Ile	Ala	Asp		
465									470						475		
Ala	Ile	Glu	Gln	Ala	Gly	Glu	Asp	Pro	Asp	Ile	Leu	Arg	Ala	Arg	Pro		
			485						490						495		
Lys	Pro	Val	Val	Gln	Trp	Ser	Asp										


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<210> 4521
<211> 406
<212> PRT
<213> S.epidermidis
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Val 1	Cys	Leu	Ile	Lys 5	Lys	Leu	Lys	Lys	Trp 10	Leu	Lys	Phe	Ser	Thr 15	Lys
Pro	Tyr	Ile	Lys 20	His	Trp	Val	Arg	Ser 25	Lys	Arg	Gly	Phe	Met 30	Asp	Ile
Lys	Ala	Gln	Leu	Lys	Gln	Ile	Gln	Asp 40	Lys	Gly	Leu	Tyr	Arg	Glu	Leu
Gln	Pro	Ile	Gln	Ser	Val	Glu	Lys	Gln 55	Tyr	Ile	Tyr	Ile	Asn 60	Asp	Gln
Ser 65	Tyr	Ile	Asn	Phe	Thr 70	Ser	Asn	Asp	Tyr	Leu	Gly	Ile	Gly	Gln	Leu
Glu	Tyr	Gln	Pro	Gln	Asn 85	Phe	Leu	Asp 90	Phe	Ile	Lys	Thr	Tyr	Ser	Ile
His	Leu	Ser	Ser 100	Ser	Arg	Leu	Val	Ser 105	Gly	Asn	Ser	Val	Val 110	Tyr	Gln
Gln	Leu	Glu	Gln	Ala	Ile	Ser	Glu	His 120	Phe	Asn	Phe	Glu	Asp 125	Ala	Leu
Ile	Phe	Asn	Ser	Gly	Tyr	Asp	Ala	Asn 135	Leu	Ala	Val	Phe	Asn 140	Ile	Phe
Lys 145	Asn	Asn	Asn	Val	Val 150	Ile	Phe	Ser	Asp	Gln	Gln	Asn	His	Ala	Ser
Ile	Ile	Asp	Gly	Ile 165	Lys	Leu	Ser	Gly 170	Leu	Ser	Lys	Val	Ile 175	Tyr	Gln
His	Leu	Asn	Tyr 180	Asp	Asp	Leu	Glu	Ser 185	His	Leu	Ala	Arg	His 190	Thr	Asn
Pro	Asp	Val 195	Gln	Lys	Val	Ile	Val	Ser 200	Asp	Ser	Val	Phe	Ser 205	Thr	Asn
Gly	Thr 210	Lys	Ala	Asp	Ile	Asn	Arg	Leu 215	Val	His	Leu	Lys	Gln 220	Arg	Tyr
Asn 225	Ala	Ile	Leu	Ile	Ile 230	Asp	Ala	Ser	His	Ser	Leu	Gly	Leu 235	Asn	Leu
Phe	Glu	Tyr	His	Ala	Asp 245	Ile	Asp	Ile	Val	Thr	Ser	Ser	Leu 255	Ser	Lys
Ala	Trp	Gly	Ala	His	Gly 260	Gly	Leu	Ile 265	Leu	Ser	Ser	Lys	Asp 270	Ile	Lys
Asp	Leu	Ile	Ile	Asn	Lys 275	Gly	Arg	Ser 280	Leu	Ile	Tyr	Ser	Ser 285	Ser	Leu
Pro	Ser 290	Tyr	His	Leu	Tyr	Phe	Ile	Gln 295	Val	Ser	Leu	Gln	His 300	Val	Ile
Glu 305	Asp	Thr	Tyr	Arg	Arg 310	Glu	Lys	Leu	Asn	Ala	Leu	Ser	Glu 315	Tyr	Phe
Asn	His	Gln	Phe	Met 325	Glu	Leu	Phe	Pro 330	Asn	Gln	Pro	Leu	Ser 335	Asn	Thr
Pro	Ile	Lys	Asn 340	Ile	Val	Cys	Asp	Ser 345	Leu	Ala	Ser	Ala	Gln 350	Ala	Gln

Tyr Asp Met Leu Phe Glu His Gly Ile Phe Val Ser Tyr Leu Arg Tyr
 355 360 365
 Pro Thr Val Ser Gln Pro Thr Leu Arg Ile Ser Leu Ser Tyr Phe His
 370 375 380
 Asp Thr Asp Asp Ile Asn Arg Leu Phe Asn Val Met Lys Gln Tyr Asp
 385 390 395 400
 Glu Gly Asp Ser Tyr Val
 405

<210> 4522
 <211> 46
 <212> PRT
 <213> S.epidermidis

<400> 4522
 Pro Ile Ile Ile Lys Ile Lys His Pro Ser Leu Tyr Asp Glu Gly Cys
 1 5 10 15
 Phe Met Asn Phe His Ile Lys Ile Lys Ser Ala Asp Tyr Ser Phe Leu
 20 25 30
 Phe Asn Ser Leu Ser Ser Phe Thr Ser Val Gly Phe Gly Ile
 35 40 45

<210> 4523
 <211> 106
 <212> PRT
 <213> S.epidermidis

<400> 4523
 Cys Asp Phe Phe Lys Lys Met Cys Arg Lys Ile Leu Val Tyr Lys His
 1 5 10 15
 Thr Ile Thr Val Ile Lys Gly Phe Phe Leu His Thr Ser His Asn Phe
 20 25 30
 Phe Asn Thr Pro Leu Leu Ser Ile Val Ile Glu Phe Asn Tyr Ile Pro
 35 40 45
 Phe Asp Ile Gly Lys Leu Asn Lys Thr Phe Gln Thr Tyr Lys Gln Leu
 50 55 60
 Asn Ile Pro Leu Leu Phe Lys Arg Ile Leu Ser Asn Glu Leu Tyr Thr
 65 70 75 80
 Ile Ile Lys Val Leu Gln Lys Phe Glu Ser Leu Asn Phe Thr Tyr Phe
 85 90 95
 Ile Tyr Ile Ala His Phe Ile Ile Met Leu
 100 105

<210> 4524
 <211> 294
 <212> PRT
 <213> S.epidermidis

<400> 4524
 Gly Glu Ser Met Asn Lys Leu Ser Lys Tyr Ile Ala Ile Ala Thr Leu
 1 5 10 15
 Ala Ser Thr Val Thr Ile Ser Ala Pro Ile His Thr Tyr Ala Cys Glu
 20 25 30
 Ser His Thr Lys Asp Asn His Asn Gln Thr Thr Gln His Gln Asn Asp
 35 40 45
 Pro Asn Leu Gly Glu Gln Asn Val Met Ala Val Ser Trp Tyr Gln Asn

50 55 60
 Ser Ala Glu Ala Lys Ala Leu Tyr Leu Gln Gly Tyr Asn Thr Ala Lys
 65 70 75 80
 Tyr Gln Leu Asp Glu His Ile Lys Lys Asn Lys Gly Lys Lys Lys Leu
 85 90 95
 Ala Ile Ala Leu Asp Leu Asp Glu Thr Val Leu Asp Asn Ser Pro Tyr
 100 105 110
 Gln Gly Tyr Ala Ser Met His Asp Thr Ser Phe Pro Glu Gly Trp His
 115 120 125
 Glu Trp Val Ala Ala Ala Lys Ala Lys Pro Val Tyr Gly Ala Lys Ser
 130 135 140
 Phe Leu Lys Tyr Ala Asp Lys Lys Gly Ile Asp Ile Tyr Tyr Ile Ser
 145 150 155 160
 Asp Arg Asp Lys Glu Lys Asp Phe Lys Ala Thr Lys Glu Asn Leu Lys
 165 170 175
 Asn Ile Gly Leu Pro Gln Ala Lys Asp Asn His Ile Leu Leu Lys Gly
 180 185 190
 Lys Asn Asp Lys Ser Lys Ala Ser Arg Arg Gln Gln Val Glu Lys Asn
 195 200 205
 His Lys Leu Val Met Leu Phe Gly Asp Asn Leu Leu Asp Phe Thr Asp
 210 215 220
 Pro Lys Lys Ser Thr Ala Lys Glu Arg Glu Lys Leu Val Lys Lys His
 225 230 235 240
 Ala Lys Asp Phe Gly Lys Lys Tyr Ile Ile Phe Pro Asn Pro Met Tyr
 245 250 255
 Gly Ser Trp Glu Ser Thr Leu Tyr His Asn Gln Tyr Glu Ile Ser Lys
 260 265 270
 Asn Glu Lys Asp Glu Leu Arg Lys Ala Ser Ile Lys Gln Phe Asn Pro
 275 280 285
 Lys Thr Gly Glu Val Lys
 290

<210> 4525

<211> 454

<212> PRT

<213> S.epidermidis

<400> 4525

Glu Asp Pro Met Ala Asn Thr Arg Glu Leu Asn His Lys Asp Ala Gln
 1 5 10 15
 Tyr Val Trp His Pro Phe Thr Gln Met Gly Val Tyr Ala Lys Asn Asp
 20 25 30
 Asn Ile Ile Ile Glu Lys Gly Arg Gly Ser Tyr Leu Tyr Asp Thr Glu
 35 40 45
 Gly Asn Lys Tyr Leu Asp Gly Tyr Ala Ser Leu Trp Val Asn Val His
 50 55 60
 Gly His Gln His Lys Lys Leu Asn Lys Ala Ile His Lys Gln Leu Asp
 65 70 75 80
 Lys Ile Ala His Ser Thr Leu Leu Gly Ser Ser Asn Ile Pro Ser Ile
 85 90 95
 Glu Leu Ala Glu Gln Leu Val Lys Leu Thr Pro Asp Arg Leu Gln Lys
 100 105 110
 Val Phe Tyr Ser Asp Thr Gly Ser Ala Ser Val Glu Ile Ala Ile Lys
 115 120 125
 Met Ala Tyr Gln Tyr Trp Lys Asn Ile Asp Ala Lys Arg Tyr Ala Lys
 130 135 140

Lys Asn Lys Phe Leu Thr Leu His His Gly Tyr His Gly Asp Thr Ile
 145 150 155 160
 Gly Ser Val Ser Val Gly Gly Ile Asp Ser Phe His Lys Ile Phe Lys
 165 170 175
 Asp Leu Ile Phe Glu Asn Ile Gln Ile Glu Thr Pro Cys Leu Tyr Lys
 180 185 190
 Ser Lys Tyr Arg Asn Glu Ala Glu Met Leu Asn Ser Ile Leu Asn Gln
 195 200 205
 Ile Glu Asn Ile Leu Ser Glu Arg Asn Asp Glu Ile Val Gly Phe Ile
 210 215 220
 Leu Glu Pro Leu Ile Gln Gly Ala Thr Gly Leu Phe Val His Pro His
 225 230 235 240
 Gly Phe Leu Lys Ala Val Glu Gln Leu Cys Arg Lys Tyr Asp Val Leu
 245 250 255
 Leu Ile Cys Asp Glu Val Ala Val Gly Phe Gly Arg Thr Gly Glu Met
 260 265 270
 Phe Ala Cys Asn His Glu Asp Val Gln Pro Asp Ile Met Cys Leu Gly
 275 280 285
 Lys Ala Ile Thr Gly Gly Tyr Leu Pro Leu Ala Ala Thr Leu Thr Ser
 290 295 300
 Gln Lys Ile Tyr Asp Ala Phe Leu Ser Gln Ser His Gly Lys Asn Thr
 305 310 315 320
 Phe Phe His Gly His Thr Tyr Thr Gly Asn Gln Leu Val Cys Ser Val
 325 330 335
 Ala Leu Glu Asn Ile Asn Leu Phe Lys Lys Lys His Leu Ile Gly His
 340 345 350
 Ile Gln Lys Thr Ser Gln Thr Leu Lys Gln Arg Leu Glu Ala Leu Gln
 355 360 365
 Pro His Lys Asn Ile Gly Asp Ile Lys Gly Arg Gly Leu Met Tyr Gly
 370 375 380
 Val Glu Leu Val Glu Asn Lys Ser Thr Gln Thr Pro Leu Asp Ile Pro
 385 390 395 400
 Thr Val Glu Leu Ile Ile Arg Arg Cys Lys Glu Asn Gly Leu Met Ile
 405 410 415
 Arg Asn Leu Glu Asn Val Ile Thr Phe Val Pro Ile Leu Ser Met Ser
 420 425 430
 Asn Lys Glu Ile Lys Lys Met Val Lys Ile Phe Asn Lys Ala Leu His
 435 440 445
 Gln Thr Leu Gly Lys Lys
 450

<210> 4526

<211> 195

<212> PRT

<213> S.epidermidis

<400> 4526

Ile Ile Thr Ile Ile Tyr Tyr Leu Glu Phe Asp Lys Glu Gly Asp Glu
 1 5 10 15
 Met Pro Arg Ile Ser Lys Arg Gln Leu Ile Leu Glu Ser Ala Ala Ala
 20 25 30
 Ile Ile Asn Glu Lys Gly Ala Asp Tyr Leu Thr Leu Asp Ala Val Ala
 35 40 45
 Gln Arg Ala Gly Ile Ser Lys Gly Gly Leu Phe Tyr His Phe Lys Ser
 50 55 60
 Lys Asp Glu Leu Ile Lys Glu Leu Val Asn Tyr Ala Asn Asn Leu Tyr

65 70 75 80
 Arg Glu Asn Val Asn Gln His Ile Gly Asn Glu Lys Asn Lys Lys Gly
 85 90 95
 Gln Trp Leu Asn Ala Phe Ile Glu Ala Thr Arg Ala His Arg Thr Asp
 100 105 110
 Asn Ala Pro Ile Thr Ser Gly Met Leu Ala Ala Gln Gly Thr Asn Arg
 115 120 125
 Ser Leu Leu Ser Pro Leu Lys Thr Ser Tyr Gln Glu Trp Gln Tyr Gln
 130 135 140
 Ile Thr His Asp Gly Leu Asp Glu Val Asp Ala Thr Ile Ile Arg Leu
 145 150 155 160
 Ala Val Asp Gly Leu Trp Leu Ser Glu Ile Phe Gly Ile Ser Ala Ile
 165 170 175
 Asp Glu Glu Met Arg Glu Lys Val Ile Glu Arg Leu Lys Met Gln Ile
 180 185 190
 Glu Lys Lys
 195

<210> 4527

<211> 271

<212> PRT

<213> S.epidermidis

<400> 4527

Met Tyr Thr Ile Ile Glu Arg Cys Glu Lys Met Lys Tyr Tyr Gly Lys
 1 5 10 15
 Cys Ile Ser Tyr Ile Ser Ile Leu Ile Leu Thr Phe Phe Ile Gly Gly
 20 25 30
 Cys Gly Phe Met Asn Lys Glu Asn Asn Lys Glu Ala Glu Ile Lys Glu
 35 40 45
 Asn Phe Asn Lys Thr Leu Ser Met Tyr Pro Ile Lys Asn Leu Glu Asp
 50 55 60
 Leu Tyr Asp Lys Glu Gly Tyr Arg Asp Glu Glu Phe Glu Lys Glu Asp
 65 70 75 80
 Lys Gly Thr Trp Ile Ile Asn Ser Glu Met Asn Ile Gln Lys Lys Gly
 85 90 95
 Gln Ala Met Lys Ser Arg Gly Met Val Leu Tyr Met Asn Arg Asn Thr
 100 105 110
 Arg Lys Thr Thr Gly His Phe Tyr Thr Asn Ile Ile Thr Glu Asp Lys
 115 120 125
 Lys Gly Arg Val His Ser Lys Asp Lys Glu Tyr Pro Val Arg Leu Lys
 130 135 140
 Asn Asn Lys Ile Glu Pro Thr Lys Ser Ile Ala Asp Glu Lys Leu Lys
 145 150 155 160
 Asn Glu Ile Lys Asn Phe Gln Phe Phe Ser Gln Tyr Gly Asn Phe Lys
 165 170 175
 Asn Leu Lys Asp Tyr Lys Asn Gly Asn Val Ser Tyr Asn Pro Asn Val
 180 185 190
 Pro Ser Tyr Ser Ala Glu Tyr Gln Leu Ser Asn Glu Asp Asp Asn Val
 195 200 205
 Lys Gln Leu Arg Lys Arg Tyr Asp Ile Pro Ile Lys Arg Ala Pro Lys
 210 215 220
 Leu Ile Leu Lys Gly Asp Gly Asp Leu Lys Gly Ser Ser Ile Gly Tyr
 225 230 235 240
 Lys Asp Ile Glu Phe Ser Phe Val Asp Asn Lys Glu Glu Ser Val Tyr
 245 250 255

Phe Val Asp Ser Leu Glu Phe Asn Pro Ser Asp Val Asn Asn Glu
 260 265 270

<210> 4528

<211> 51

<212> PRT

<213> S.epidermidis

<400> 4528

Met Phe Thr Ile Ile Ser Asn Ile Asn Gln Arg Ile Asn Phe Thr Leu
 1 5 10 15
 Leu Asn Tyr Ala Ser Leu Asn Leu Phe Asn Lys Lys Arg Val Glu Gln
 20 25 30
 Asn Pro Tyr Arg Ile Leu Tyr Ser Thr Leu Thr Lys Leu Thr Arg Val
 35 40 45
 Asp Ser Leu
 50

<210> 4529

<211> 64

<212> PRT

<213> S.epidermidis

<400> 4529

Val Ile Gln Met Asn His Phe Gly Lys Leu His Arg Ile Ser Leu Ile
 1 5 10 15
 Leu Asn Ile Met Phe Leu Ile Leu Met Pro Lys Ile Tyr Ser Phe Asp
 20 25 30
 Asn Ile Tyr Leu Ser Ile Ile Trp Thr Leu Leu Gly Ile Ala Asn Ala
 35 40 45
 Val Tyr Leu Leu Ile Lys Gln Lys Gln Glu Asn Thr Ile Lys Arg Lys
 50 55 60

<210> 4530

<211> 325

<212> PRT

<213> S.epidermidis

<400> 4530

Arg Arg Gln Ile Met Lys Phe Ala Val Val Gly Thr Gly Val Ile Gly
 1 5 10 15
 Ser Gly Trp Ile Thr Arg Met Leu Ala His Gly His Glu Val Ile Ala
 20 25 30
 Thr Asp Pro Ser Glu Gly Ala Tyr Glu Arg Met Leu Thr Gln Val Lys
 35 40 45
 Gln Asn Trp Pro Tyr Ala Glu Gln Met Gly Leu Ala Glu Asn Ala Ser
 50 55 60
 Ile Gln Asn Leu Thr Phe Thr Pro His Leu Glu Ala Val Lys Asp
 65 70 75 80
 Ala Asp His Ile Gln Glu Asn Val Pro Glu Val Glu Glu Ile Lys Asp
 85 90 95
 Ala Val Leu Lys Glu Ile Asp Phe Tyr Ala Lys Pro Glu Ala Thr Ile
 100 105 110
 Gly Ser Ser Thr Ser Gly Ile Met Pro Ser Glu Leu Gln Ala Asn Leu
 115 120 125
 Ser His Pro Glu Arg Leu Val Val Ala His Pro Phe His Pro Val Tyr

130		135		140
Ile Leu Pro Leu Val Glu	Ile Val Pro Gly Lys	Gln Thr Ser Glu Glu		
145	150	155	160	
Thr Thr Val Lys Ala Glu	Gln Ile Tyr Glu Ser	Ile Gly Met Asp Val		
	165	170	175	
Leu His Val Arg His Glu	Ile Glu Gly His Ile	Ala Asp Arg Leu Met		
	180	185	190	
Glu Ala Leu Trp Arg Glu	Ser Leu His Ile Val	Asn Asp Gly Ile Ala		
	195	200	205	
Thr Thr Glu Glu Val Asp	Lys Ala Phe Thr His	Ala Ala Gly Leu Arg		
	210	215	220	
Tyr Ala Gln Tyr Gly Pro	Phe Met Thr Phe His	Leu Ala Gly Gly Glu		
225	230	235	240	
Gly Gly Met Arg His Met	Leu Lys Gln Phe Gly	Pro Ala Leu Lys Lys		
	245	250	255	
Pro Trp Thr Lys Leu Ile	Ala Pro Glu Leu Thr	Asp Asp Leu Tyr His		
	260	265	270	
Lys Val Val Ser Gly Ser	Glu Ala Ser Ser Gln	Gly Tyr Thr Met Ser		
	275	280	285	
Glu Leu Asp Gln Lys Arg	Asn Glu Phe Leu Ile	Lys Val Lys Glu Leu		
	290	295	300	
Ala Glu Gln Tyr Trp Pro	Ser Asp Ser Lys Ala	Met Lys Lys Ser Asn		
305	310	315	320	
Gly Ala Glu Leu Gln				
	325			

<210> 4531

<211> 418

<212> PRT

<213> S.epidermidis

<400> 4531

Lys Val Lys Ile Ile Thr	Lys Asn Glu Glu Asp	Cys Glu Met Thr Val
1	5	10
Leu Ser Glu Gln Asp Lys	Ile Arg Leu Leu Ala	Asp Ile Val Lys Ile
	20	25
Gln Thr Glu Asn Asp His	Glu Ile Glu Val Cys	Glu Tyr Leu Lys Asp
	35	40
Leu Leu Ser Gln Tyr Asp	Ile Asp Ser Lys Ile	Val Lys Val Asn Asp
	50	55
Ser Arg Ala Asn Leu Val	Ala Glu Ile Gly Ser	Gly Ala Pro Val Leu
65	70	75
Ala Ile Ser Gly His Met	Asp Val Val Asp	Ala Gly Asp His Asp
	85	90
Trp Thr Phe Pro Pro Phe	Glu Leu Thr Asp	Lys Asp Gly Lys Leu Phe
	100	105
Gly Arg Gly Thr Thr Asp	Met Lys Gly Gly Leu	Met Ala Met Val Ile
	115	120
Ala Met Ile Glu Leu Lys	Gln Ser Asn Ala Leu	Lys Gln Gly Thr Ile
	130	135
Arg Leu Leu Ala Thr Thr	Gly Glu Glu Thr Glu	Gln Tyr Gly Ala Gln
145	150	155
Leu Leu Ala Asp Glu Gly	Tyr Leu Asp Asp	Val Ser Gly Leu Ile Ile
	165	170
Gly Glu Pro Thr Ser Asn	Ile Ala Tyr Tyr	Ala His Lys Gly Ser Met
	180	185
		190

Ser Cys Val Val Thr Ala Lys Gly Lys Ala Ala His Ser Ser Met Pro
 195 200 205
 His Leu Gly Thr Asn Ala Val Asp Ile Leu Val Asp Phe Val Asn Glu
 210 215 220
 Met Lys Gln Glu Tyr Lys Asn Ile Lys Glu His Asp Lys Val His Glu
 225 230 235 240
 Leu Asp Ala Val Pro Met Ile Glu Lys His Leu His Arg Lys Ile Gly
 245 250 255
 Glu Glu Glu Ser His Ile Tyr Ser Gly Phe Val Met Leu Asn Ser Val
 260 265 270
 Phe Asn Gly Gly Lys Gln Val Asn Ser Val Pro His Lys Ala Thr Ala
 275 280 285
 Lys Tyr Asn Val Arg Thr Val Pro Glu Tyr Asp Ser Thr Phe Val Lys
 290 295 300
 Asp Leu Phe Glu Lys Val Ile Arg His Val Gly Glu Asp Tyr Leu Thr
 305 310 315 320
 Val Asp Ile Pro Ser Ser His Asp Pro Val Ala Ser Asp Arg Asp Asn
 325 330 335
 Pro Leu Ile Gln Asn Ile Thr Arg Ile Ala Pro Asn Tyr Val His Glu
 340 345 350
 Asp Ile Val Val Ser Ala Leu Ile Gly Thr Thr Asp Ala Ser Ser Phe
 355 360 365
 Leu Gly Thr Asn Glu Asn Asn Val Asp Phe Ala Val Phe Gly Pro Gly
 370 375 380
 Glu Ser Ile Met Ala His Gln Val Asp Glu Phe Ile Arg Lys Asp Met
 385 390 395 400
 Tyr Leu Ser Tyr Ile Asp Val Tyr Lys Asp Val Phe Lys Ala Tyr Leu
 405 410 415
 Glu Lys

<210> 4532
 <211> 756
 <212> PRT
 <213> S.epidermidis

<400> 4532
 Gln Tyr Glu Met Glu Ala Glu Ser Met Leu Glu Thr Asn Asn His Thr
 1 5 10 15
 Asn Ala Trp Gln Gly Phe Lys Thr Gly Arg Trp Asn Lys Asn Ile Asp
 20 25 30
 Val Arg Glu Phe Ile Gln Leu Asn Tyr Ser Leu Tyr Glu Gly Asp Asp
 35 40 45
 Glu Phe Leu Glu Gly Pro Thr Lys Ala Thr Glu Thr Leu Trp Asp Gln
 50 55 60
 Val Met Gln Leu Ser Lys Glu Glu Arg Glu Arg Gly Gly Met Trp Asp
 65 70 75 80
 Met Asp Thr Lys Val Ala Ser Thr Ile Thr Ser His Asp Ala Gly Tyr
 85 90 95
 Leu Asp Lys Asp Leu Glu Lys Val Val Gly Val Gln Thr Glu Lys Pro
 100 105 110
 Phe Lys Arg Ser Met Gln Pro Phe Gly Gly Ile Arg Met Ala Lys Ala
 115 120 125
 Ala Cys Glu Ala Tyr Gly Tyr Glu Leu Asp Pro Glu Thr Glu Lys Ile
 130 135 140
 Phe Thr Glu Tyr Arg Lys Thr His Asn Gln Gly Val Phe Asp Ala Tyr

145					150					155					160
Ser	Arg	Glu	Met	Leu	Asn	Cys	Arg	Lys	Ala	Gly	Ile	Ile	Thr	Gly	Leu
				165					170					175	
Pro	Asp	Ala	Tyr	Gly	Arg	Gly	Arg	Ile	Ile	Gly	Asp	Tyr	Arg	Arg	Val
			180					185					190		
Ala	Leu	Tyr	Gly	Val	Asp	Phe	Leu	Met	Glu	Gln	Lys	Leu	Lys	Asp	Phe
		195					200				205				
Asn	Thr	Met	Ser	Thr	Glu	Met	Ser	Glu	Asp	Val	Ile	Arg	Leu	Arg	Glu
	210					215					220				
Glu	Leu	Ser	Glu	Gln	Tyr	Arg	Ser	Leu	Gln	Asp	Leu	Lys	Glu	Leu	Gly
225					230					235					240
Gln	Lys	Tyr	Gly	Phe	Asp	Ile	Ser	Arg	Pro	Ala	Thr	Asn	Phe	Lys	Glu
				245					250					255	
Ala	Val	Gln	Trp	Leu	Tyr	Leu	Ala	Tyr	Leu	Ala	Ala	Ile	Lys	Glu	Gln
		260						265					270		
Asn	Gly	Ala	Ala	Met	Ser	Leu	Gly	Arg	Thr	Ser	Thr	Phe	Leu	Asp	Ile
	275						280					285			
Tyr	Ala	Glu	Arg	Asp	Leu	Gln	Asn	Gly	Asp	Ile	Thr	Glu	Gln	Glu	Val
	290					295					300				
Gln	Glu	Ile	Ile	Asp	His	Phe	Ile	Met	Lys	Leu	Arg	Ile	Val	Lys	Phe
305					310					315					320
Ala	Arg	Thr	Pro	Glu	Tyr	Asn	Glu	Leu	Phe	Ser	Gly	Asp	Pro	Thr	Trp
				325					330					335	
Val	Thr	Glu	Ser	Ile	Gly	Gly	Val	Gly	Ile	Asp	Gly	Arg	Pro	Met	Val
		340					345						350		
Thr	Lys	Asn	Ser	Phe	Arg	Phe	Leu	His	Ser	Leu	Asp	Asn	Leu	Gly	Pro
	355					360					365				
Ala	Pro	Glu	Pro	Asn	Leu	Thr	Val	Leu	Trp	Ser	Thr	Arg	Leu	Pro	Glu
	370					375					380				
Asn	Phe	Lys	Ile	Tyr	Cys	Ala	Lys	Met	Ser	Ile	Lys	Thr	Ser	Ser	Ile
385					390					395					400
Gln	Tyr	Glu	Asn	Asp	Leu	Met	Arg	Glu	Ser	Tyr	Gly	Asp	Asp	Tyr	
			405					410					415		
Gly	Ile	Ala	Cys	Cys	Val	Ser	Ala	Met	Lys	Ile	Gly	Lys	Gln	Met	Gln
		420					425					430			
Phe	Phe	Gly	Ala	Arg	Ala	Asn	Leu	Ala	Lys	Ala	Leu	Leu	Tyr	Ala	Ile
	435					440					445				
Asn	Gly	Gly	Lys	Asp	Glu	Lys	Ser	Gly	Lys	Gln	Val	Gly	Pro	Ser	Tyr
	450				455					460					
Glu	Gly	Ile	Lys	Ser	Asp	Val	Leu	Asp	Tyr	Asp	Glu	Val	Phe	Glu	Arg
465					470				475						480
Tyr	Glu	Lys	Met	Met	Asp	Trp	Leu	Ala	Gly	Val	Tyr	Ile	Asn	Ser	Leu
			485					490					495		
Asn	Ile	Ile	His	Tyr	Met	His	Asp	Lys	Tyr	Ser	Tyr	Glu	Arg	Leu	Glu
		500					505					510			
Met	Ala	Leu	His	Asp	Thr	Glu	Ile	Ile	Arg	Thr	Met	Ala	Thr	Gly	Ile
	515						520					525			
Ala	Gly	Leu	Ser	Val	Ala	Ala	Asp	Ser	Leu	Ser	Ala	Ile	Lys	Tyr	Ala
	530					535				540					
Gln	Val	Lys	Pro	Ile	Arg	Asn	Glu	Glu	Gly	Leu	Val	Thr	Asp	Phe	Glu
545					550				555						560
Ile	Glu	Gly	Asp	Phe	Pro	Lys	Tyr	Gly	Asn	Asn	Asp	Ser	Arg	Val	Asp
			565					570						575	
Glu	Ile	Ala	Val	Asp	Leu	Val	Glu	Arg	Phe	Met	Thr	Lys	Leu	Arg	Ser
		580					585					590			
His	Lys	Thr	Tyr	Arg	Asn	Ser	Glu	His	Thr	Met	Ser	Val	Leu	Thr	Ile

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<210> 4533
<211> 167
<212> PRT
<213> S.epidermidis
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<210> 4534
<211> 96
<212> PRT
<213> S.epidermidis
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<400> 4534

Leu	Ser	Thr	Phe	Cys	Leu	Ser	Ser	Pro	Trp	Lys	Lys	Glu	Leu	Ile	Asn	
1				5					10					15		
Ala	Met	Val	Ala	Gly	Ser	Lys	His	Ala	Ala	Asp	Lys	Pro	Cys	Lys	Thr	
			20					25					30			
Arg	Pro	Asn	Asn	Asn	Lys	Ile	Gly	Ala	Cys	Glu	Met	Ile	Asn	Ala	Ile	
		35					40					45				
Glu	Pro	Ser	Ile	Leu	Asn	Ile	Arg	Pro	Ala	Phe	Val	Ile	Leu	Thr	Arg	
	50					55					60					
Pro	Ile	Leu	Ser	Asp	Asn	Pro	Pro	Ala	Thr	Thr	Ile	Asn	Thr	Pro	Val	
65					70					75					80	
Lys	Ser	Asp	Val	Arg	Leu	Thr	Ala	Ile	Leu	Thr	Ile	Leu	Ile	Ser	Thr	
				85					90					95		

<210> 4535

<211> 84

<212> PRT

<213> S.epidermidis

<400> 4535

Tyr	Val	Met	Met	Asp	Phe	Leu	His	Tyr	Ile	Leu	Pro	Val	Ile	Ile	Tyr	
1				5					10					15		
Ala	Val	Leu	Leu	Ala	Ile	His	Tyr	Phe	Leu	Ser	Arg	Thr	Gly	Asn	Lys	
			20					25					30			
Ile	Leu	Gly	Leu	Ile	Val	Pro	Val	Gly	Val	Ile	Ala	Ser	Leu	Val	Tyr	
		35					40					45				
Met	Tyr	Gln	Ala	Asp	Ile	Ile	His	Met	Lys	Met	Ile	Gly	Val	Ile	Ile	
	50					55					60					
Ile	Gly	Ile	Val	Ala	Leu	Leu	Phe	Leu	Ala	Glu	Trp	Gln	Arg	Ala		
65					70					75				80		
Gln	Lys	Asp	Lys													

<210> 4536

<211> 213

<212> PRT

<213> S.epidermidis

<400> 4536

Asp	Thr	Met	Ile	Lys	Phe	Ile	Ser	Glu	His	Ser	Gly	Met	Leu	Phe	Ala	
1				5					10					15		
Lys	Thr	Phe	Glu	His	Leu	Tyr	Ile	Ser	Ile	Val	Ala	Leu	Val	Ile	Ala	
			20					25					30			
Met	Ile	Val	Ala	Val	Pro	Leu	Gly	Ile	Leu	Leu	Ser	Lys	Lys	Glu	Lys	
		35					40					45				
Leu	Ser	Lys	Val	Ser	Leu	Thr	Ile	Ala	Gly	Val	Leu	Gln	Thr	Ile	Pro	
	50					55					60					
Thr	Leu	Ala	Val	Leu	Ala	Leu	Met	Ile	Pro	Leu	Phe	Gly	Val	Gly	Lys	
65					70					75					80	
Thr	Pro	Ala	Ile	Ile	Ala	Leu	Phe	Leu	Tyr	Val	Leu	Leu	Pro	Ile	Leu	
				85					90					95		
Asn	Asn	Thr	Ile	Ile	Gly	Ile	Gln	Asn	Ile	Asp	Ser	Asn	Leu	Arg	Glu	
			100					105					110			
Ala	Gly	Arg	Ser	Met	Gly	Met	Thr	Asn	Phe	Gln	Leu	Met	Lys	Asp	Val	
		115					120					125				
Glu	Leu	Pro	Leu	Ala	Leu	Pro	Leu	Ile	Leu	Ser	Gly	Ile	Arg	Leu	Ser	

130		135		140
Ser Val Tyr Val Ile	Ser Trp Ala Thr Leu	Ala Ser Tyr Val Gly	Ala	
145	150	155	160	
Gly Gly Leu Gly Asp	Phe Ile Phe Asn Gly	Leu Ala Leu Phe Glu	Pro	
	165	170	175	
Ser Met Ile Ile Thr	Ala Thr Ile Leu Val	Thr Ala Ile Ala Leu	Ile	
	180	185	190	
Val Asp Tyr Val Leu	Ser Leu Ile Glu Lys	Trp Val Val Pro Lys	Gly	
	195	200	205	
Leu Lys Val Ser Arg				
210				

<210> 4537

<211> 63

<212> PRT

<213> S.epidermidis

<400> 4537

Leu Asn Ser Ile Thr	Ile Asp Ser Lys Gly	Val Leu Lys Lys Leu	Cys
1	5	10	15
Glu Val Trp Arg Lys	Lys Pro Leu Ile Thr	Val Ile Val Cys Leu	Tyr
	20	25	30
Thr Arg Ile Leu Arg	His Ile Phe Leu Lys	Lys Ser His Tyr Gln	Lys
	35	40	45
Leu Lys Asn Ile Ile	Ile Ile Asn Val Val	Lys Asn Val Leu Asp	
50	55	60	

<210> 4538

<211> 236

<212> PRT

<213> S.epidermidis

<400> 4538

Asn Asn Thr Met Lys	Val Ile Ala Met Tyr	Ser Ile Lys Met Arg	Ala
1	5	10	15
Ser His Glu Asp Val	His Ile Ser Gly Ala	Glu Thr Met Cys Glu	Phe
	20	25	30
Glu Asp Leu Glu Asn	Tyr Leu Lys Lys Tyr	Phe Asn Lys Ala Phe	Asn
	35	40	45
His Glu Asn Gly Asn	Ile Asp Phe Leu Asn	Leu Lys Ile Glu Lys	Val
	50	55	60
Lys Ala Pro Ile Gln	Thr Leu Val Ala Leu	Pro Val Val Glu Asn	Leu
65	70	75	80
Asn Asp Thr Leu Thr	Gln Leu Ala Lys Gln	Thr Gly Val Ser Glu	Tyr
	85	90	95
Ala Leu Asn Lys Gly	Leu Glu Phe Ile Lys	Asn Asp Ile Thr Tyr	Thr
	100	105	110
Gly Ala Ile Ile Leu	Ser Ala Gln Thr Gly	Gln Arg Leu Asp Ser	Thr
	115	120	125
Glu Gln Arg Gly Ile	Arg Val Thr Gln Leu	Ala Phe Lys Thr Cys	Lys
	130	135	140
Cys Asn Gly Glu Ile	Ser Glu Arg Val Lys	Asp Ala Arg Ala Leu	Ala
145	150	155	160
Thr Cys Ile Asn Ala	Phe Glu Gly Val Lys	Ala Glu Leu Cys Val	Ser
	165	170	175
Asp Asp Leu His Tyr	Thr Thr Gly Tyr Phe	Ala Ser Pro Lys Leu	Gly

	180		185		190
Tyr	Arg	Arg	Ile	Phe	Asn
	195		200		205
Arg	Ile	Ile	Phe	Val	Asp
	210		215		220
Phe	Leu	Glu	Thr	Val	Pro
225			230		235

<210> 4539
 <211> 56
 <212> PRT
 <213> S.epidermidis

<400> 4539
Ser Tyr Phe Val Leu Leu Thr Gln Tyr Ser His Phe Thr Val Leu Leu
1 5 10 15
Ile Phe Ser Asn Asp Phe His Phe Leu Ile Lys Asn Lys Asn Pro Cys
20 25 30
Thr Leu Asn Ile Ile Lys Asn Phe Tyr Leu Leu Lys Ile Ile Cys Gln
35 40 45
Asn Lys Trp Ile Phe Asn Lys Lys
50 55

<210> 4540
 <211> 192
 <212> PRT
 <213> S.epidermidis

<400> 4540
Arg Met Asn Val Ala Asp Ile Lys Ala Arg Leu Leu Asp Leu Glu Asn
1 5 10 15
Thr Phe Lys Glu Lys Glu Ser Glu Leu Thr Asp Leu Asp Arg Ala Ile
20 25 30
Gly Asp Gly Asp His Gly Val Asn Met Val Arg Gly Phe Glu His Leu
35 40 45
Lys Glu Lys Ile Asp Asp Gln Ser Met Gln Ala Leu Phe Lys Ser Thr
50 55 60
Gly Met Thr Leu Met Ser Asn Val Gly Gly Ala Ser Gly Pro Leu Tyr
65 70 75 80
Gly Phe Gly Phe Ile Lys Met Ala Ser Ala Val Asn Asp Glu Ile Asp
85 90 95
His Asp Asn Leu Lys Glu Val Leu Lys Ala Phe Ala Asp Gly Ile Gln
100 105 110
Gln Arg Gly Lys Val Glu Leu Asn Glu Lys Thr Met Tyr Asp Val Ile
115 120 125
Glu Arg Ala Arg Glu Ala Val Glu Lys Asn Glu Thr Val Asp Leu Asp
130 135 140
Lys Leu Gln Ser Phe Ala Asn Glu Thr Lys Asp Met Val Ala Thr Lys
145 150 155 160
Gly Arg Ala Ser Tyr Phe Asn Glu Ala Ser Lys Gly Tyr Ile Asp Pro
165 170 175
Gly Ala Gln Ser Ser Val Tyr Ile Leu Asn Ala Ile Ile Gly Gly Glu
180 185 190

<210> 4541
 <211> 75

<212> PRT

<213> S.epidermidis

<400> 4541

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Asn Ile Cys Phe Leu Tyr Leu Ile Tyr His Asn Ile Val Gln Phe Asn
1          5          10          15
Leu Lys Phe Thr Met Phe Asn Ile Tyr Ser Ser Phe Tyr Ile Leu Tyr
          20          25          30
Lys Lys His Gly Leu Tyr Leu Thr Val Cys Ser Phe Thr Phe Arg Pro
          35          40          45
Thr Ile Cys Leu Ser Asn Gln Ser Lys Thr Tyr Phe Tyr Val Thr Phe
          50          55          60
Val Asn Cys Ser Arg Phe Thr Thr Thr Lys Tyr
65          70          75

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<210> 4542

<211> 315

<212> PRT

<213> S.epidermidis

<400> 4542

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Arg Ser Val Val Met Val Lys Phe Ile Met Lys Arg Leu Thr Leu Met
1          5          10          15
Ile Pro Leu Leu Ile Val Val Thr Phe Met Thr Phe Met Met Thr Tyr
          20          25          30
Leu Thr Asn Glu Asp Pro Ala Val Thr Ile Leu His Ala Gln Gly Thr
          35          40          45
Pro Asn Ile Thr Gln Asp Leu Ile Ala Glu Thr Lys Glu Lys Tyr Gly
          50          55          60
Leu Asn Gln Pro Ile Phe Thr Gln Tyr Lys Asn Trp Leu Val Asp Ala
65          70          75          80
Leu Gln Phe Lys Phe Gly Thr Ser Tyr Ile Thr Gly Asp Pro Val Ser
          85          90          95
Glu Arg Met Gly Pro Ala Phe Met Asn Thr Leu Lys Leu Thr Leu Ile
          100          105          110
Ser Ser Val Val Val Met Ile Thr Ser Val Val Leu Gly Ile Val Ser
          115          120          125
Ala Leu Thr Ser Gly Arg Phe Pro Asp Arg Ala Ile Arg Ser Ile Ala
          130          135          140
Phe Leu Leu Thr Ala Leu Pro Ser Tyr Trp Val Ala Ser Ile Leu Ile
145          150          155          160
Ile Tyr Val Ser Val Lys Leu Asn Leu Leu Pro Thr Ser Gly Leu Thr
          165          170          175
Gly Pro Glu Ser Tyr Ile Leu Pro Val Phe Val Ile Thr Ile Thr Tyr
          180          185          190
Ala Gly Ile Tyr Phe Arg Asn Val Arg Arg Ser Met Leu Glu Gln Leu
          195          200          205
Asn Glu Asp Tyr Val Leu Tyr Leu Lys Ala Ser Gly Val Pro Arg Leu
          210          215          220
Thr Met Leu Leu His Val Leu Arg Asn Ala Leu Gln Val Ala Ile Ser
225          230          235          240
Ile Phe Cys Met Ser Ile Pro Met Ile Met Gly Gly Leu Val Val Ile
          245          250          255
Glu Asn Val Phe Ala Trp Pro Gly Leu Gly Pro Leu Ser Ile Lys Ala
          260          265          270
Ile Thr Glu His Asp Phe Pro Val Ile Gln Ala Tyr Val Leu Ile Val

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<210> 4543
<211> 54
<212> PRT
<213> S.epidermidis
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<210> 4544
<211> 257
<212> PRT
<213> S.epidermidis
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<400> 4544															
Leu	Thr	Met	Val	Asn	Ile	Met	Glu	Lys	Phe	Lys	Leu	Thr	Gly	Lys	Val
1				5					10					15	
Ala	Met	Val	Ile	Gly	Gly	Ala	Thr	Gly	Ile	Gly	Lys	Ala	Met	Ala	Glu
			20					25					30		
Ala	Leu	Ala	Gln	Ala	Gly	Ala	Asn	Ile	Val	Ile	Ala	Asp	Leu	Gln	Ser
		35					40					45			
Asn	Ile	Gly	Gln	Glu	Thr	Ala	Thr	Thr	Ile	Ser	Thr	Gln	Ser	Gly	Val
	50					55					60				
Lys	Thr	Thr	Ser	Leu	Lys	Leu	Asp	Ile	Thr	His	Leu	Asp	Glu	Val	Asn
65					70					75					80
Gln	Ile	Val	Asp	Tyr	Val	Val	Arg	Glu	Tyr	Gly	Lys	Ile	Asp	Ile	Leu
				85					90					95	
Val	Asn	Asn	Ala	Ser	Ile	Ser	Ile	Gln	Asp	Asp	Thr	Glu	Asn	Ile	Ser
			100					105					110		
Tyr	Glu	Glu	Trp	Leu	Lys	Glu	Ile	Asn	Leu	Ser	Leu	Asn	Gly	Ala	Phe
		115					120					125			
Ser	Val	Ala	Gln	Thr	Val	Gly	Arg	Gln	Met	Ile	Glu	Lys	Gly	Ser	Gly
		130				135					140				
Ser	Met	Ile	Asn	Val	Ser	Ser	Val	Leu	Gly	Leu	Ile	Ala	Asn	Lys	Thr
145					150					155					160
Gln	Asp	Gln	Ser	Ser	Tyr	Glu	Thr	Ser	Lys	Ala	Gly	Val	Thr	Met	Leu
				165					170					175	
Thr	Lys	Ser	Leu	Ala	Arg	Glu	Trp	Ser	Arg	Tyr	Gly	Ile	Lys	Val	Asn
			180					185					190		
Ala	Ile	Ala	Pro	Gly	Tyr	Met	Arg	Thr	Ile	Glu	Thr	Glu	Lys	Ile	Leu
		195					200					205			
Asn	Asp	Asn	Thr	Glu	Thr	Asn	Thr	Thr	Pro	Met	Glu	Arg	Val	Gly	Glu
	210					215					220				
Pro	Glu	Glu	Leu	Ala	Gly	Ile	Thr	Val	Tyr	Leu	Ala	Ser	Asp	Ala	Ser

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<210> 4545
<211> 194
<212> PRT
<213> S.epidermidis
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<210> 4546
<211> 473
<212> PRT
<213> S.epidermidis
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<400> 4546															
Cys	Asp	Ile	Phe	Phe	Leu	Thr	Lys	Met	Ile	Gly	Val	Leu	Gly	Met	Asn
1				5					10					15	
Phe	Phe	Asp	Ile	His	Lys	Met	Pro	Asn	Lys	Gly	Ile	Pro	Leu	Ser	Val
			20					25					30		
Gln	Arg	Lys	Leu	Trp	Leu	Arg	Asn	Phe	Met	Gln	Ala	Phe	Phe	Val	Val
		35					40					45			
Phe	Phe	Val	Tyr	Met	Ala	Met	Tyr	Leu	Ile	Arg	Asn	Asn	Phe	Lys	Ala
	50					55					60				
Ala	Gln	Pro	Leu	Leu	Lys	Glu	Glu	Ile	Gly	Leu	Thr	Thr	Leu	Glu	Leu
65					70					75					80
Gly	Tyr	Ile	Gly	Leu	Ala	Phe	Ser	Ile	Thr	Tyr	Gly	Leu	Gly	Lys	Thr

Phe Ile Ser Phe Ile Leu Ile Phe Lys Met Lys Ser His Cys Ser His
 1 5 10 15
 Phe Val Phe Met Pro His Tyr Arg Thr Tyr Phe Leu Ile Gln Leu Asn
 20 25 30
 Arg Thr Ser Phe Leu Phe Pro Ile Lys Asn Thr Pro
 35 40

<210> 4548

<211> 543

<212> PRT

<213> S.epidermidis

<400> 4548

Val Tyr Ile Phe Ser Lys Arg Lys Arg Lys Thr Met Asn Lys Leu Thr
 1 5 10 15
 Lys Leu Ser Thr Val Ile Phe Val Ser Gly Ile Ile Leu Ala Gly Cys
 20 25 30
 Gly Ser Asn Lys Glu Leu Thr Glu Lys Lys Glu Asn Lys Val Leu Ser
 35 40 45
 Tyr Thr Thr Val Lys Asp Ile Gly Asp Met Asn Pro His Val Tyr Gly
 50 55 60
 Gly Ser Met Ser Ala Glu Ser Met Ile Tyr Glu Pro Leu Val Arg Asn
 65 70 75 80
 Thr Lys Asp Gly Ile Lys Pro Leu Leu Ala Lys Lys Trp Asp Ile Ser
 85 90 95
 Pro Asp Gly Lys Thr Tyr Thr Phe Tyr Leu Arg Asp Asp Val Ser Phe
 100 105 110
 His Asp Gly Thr Lys Phe Asp Ala Asp Ala Val Lys Lys Asn Ile Asp
 115 120 125
 Ala Val Gln Gln Asn Lys Lys Leu His Ser Trp Leu Lys Leu Ser Thr
 130 135 140
 Leu Ile Asp Asp Val Lys Val Lys Asp Lys Tyr Thr Val Gln Leu His
 145 150 155 160
 Leu Lys Glu Ala Tyr Gln Pro Ala Leu Ala Glu Leu Ala Met Pro Arg
 165 170 175
 Pro Tyr Val Phe Val Ser Pro Lys Asp Phe Lys His Gly Thr Thr Lys
 180 185 190
 Asp Gly Val Lys Ser Phe Asp Gly Thr Gly Pro Phe Lys Met Gly Glu
 195 200 205
 His Lys Lys Asp Ile Ser Ala Glu Phe Asn Lys Asn Asn Gln Tyr Trp
 210 215 220
 Gly Glu Lys Ala Lys Leu Asn Lys Val Glu Ala Lys Val Lys Pro Ala
 225 230 235 240
 Gly Glu Thr Ala Phe Leu Ser Met Lys Lys Gly Glu Thr Asn Phe Ala
 245 250 255
 Tyr Thr Asp Asp Arg Gly Thr Asp Ser Leu Asp Lys Asp Ser Leu Lys
 260 265 270
 Gln Leu Lys Glu Thr Gly Ser Tyr Gln Val Lys Arg Ser Gln Ala Met
 275 280 285
 Asn Thr Lys Met Leu Val Val Asn Ser Gly Lys Lys Asp Ser Ala Val
 290 295 300
 Ser Asp Lys Ala Val Arg Gln Ala Leu Gly His Met Val Asn Arg Asp
 305 310 315 320
 Lys Ile Ala Gln Asp Ile Leu Asn Lys Gln Glu Lys Pro Ala Thr Gln
 325 330 335
 Leu Phe Ala Lys Asn Val Thr Asp Ile Asn Phe Asn Leu Pro Thr Arg

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<210> 4549
<211> 171
<212> PRT
<213> S.epidermidis
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<210> 4550

<211> 69
 <212> PRT
 <213> S.epidermidis

<400> 4550

Cys Pro Pro Leu Phe Val Ile Tyr Ile Leu Leu Leu Val Gln Tyr Lys
 1 5 10 15
 Val Phe Tyr Ile Glu Asn Val Ser Asn Ala Ile Asn Tyr Leu Leu Thr
 20 25 30
 Leu Ala Pro Thr His Asn Ser Ser Asn Thr Ser His Ile Lys Phe Ser
 35 40 45
 Phe Ser Asp Asn Leu Ile Leu Leu Arg Ile Leu Ser Ala Tyr Ile Asp
 50 55 60
 Val Ile Tyr Phe Phe
 65

<210> 4551

<211> 341

<212> PRT

<213> S.epidermidis

<400> 4551

Thr Val Lys Phe Glu Lys Ala Ile Gly Thr Gly Ala Phe Val Val Asp
 1 5 10 15
 Lys Thr Val Lys Glu Lys Thr Thr Leu Lys Pro Asn Lys Tyr Phe Asp
 20 25 30
 His Gly His Pro Ile Asn Tyr His Leu Ala Phe Gln Thr Ile Glu Asp
 35 40 45
 Gly Asp Ser Arg Asn Ser Pro Val Gln Ser Gly Phe Val Asp Ile Ser
 50 55 60
 Gly Gly Ala Leu Gly Met Leu Ser Asp Glu Gln Ile Lys Gln Asp Lys
 65 70 75 80
 Lys Asn Lys Asn Leu Thr Ile Glu Asp Arg Pro Ser Thr Val Ser His
 85 90 95
 Phe Met Ala Phe Asn Pro Lys Asn Asp Val Leu Asn Gln Arg Thr Ile
 100 105 110
 Arg Glu Ala Ile Ser Lys Ser Ile Asp Ala Lys Asp Ile Ala Gly Lys
 115 120 125
 Ser Val Asn Gly Leu Phe Gln Lys Asn Val Gln Phe Val Thr Lys Asn
 130 135 140
 Asn Gln Gln Pro His Asp Tyr Asp Met Lys Ala Ala Glu Arg Leu Leu
 145 150 155 160
 Lys Ser Glu Gly Tyr His Lys Asn Asp Asp Gly Ile Phe Glu Lys Asn
 165 170 175
 Gly Lys Pro Leu Ser Phe Asn Leu Val Ile Gln Thr Ala Glu Phe Pro
 180 185 190
 Asn Trp Lys Asp Lys Ala Glu Lys Val Gln Arg Gln Leu Lys Gln Ala
 195 200 205
 Gly Ile Lys Leu Asn Val Lys Thr Leu Asp Ser Gln Ser Tyr Tyr Asp
 210 215 220
 Thr Leu Trp Thr Lys Lys Asp Tyr Asp Leu Ile Phe Tyr Arg Thr Tyr
 225 230 235 240
 Ser Asp Ala Leu Met Pro Tyr Asn Phe Ile Ser Ser Val Phe Lys Asn
 245 250 255
 Asn Asp Gly Gln Pro Gly Val Leu Ala Asp Asp Glu Thr Leu Thr Lys
 260 265 270

Gln Leu Asp Asp Phe Pro Ser Thr Val Ser Lys Glu Asp Gln Gln Cys
 275 280 285
 Ser Phe Asp Asp Ile Phe Lys His Phe Asn Gln Gln Tyr Tyr Gly Val
 290 295 300
 Pro Ile Ala Tyr Pro Asn Glu Thr Phe Val Val Ser Asp Lys Val Lys
 305 310 315 320
 Gln Phe Lys Phe Ser Gly Leu Thr Asp Ala Pro Ile Asp Tyr Lys Ala
 325 330 335
 Leu Lys Val Asn Glu
 340

<210> 4552

<211> 253

<212> PRT

<213> S.epidermidis

<400> 4552

Gly Val Ile Ser Met Leu Lys Val Gln Asn Val Ile Lys Phe Tyr Gly
 1 5 10 15
 Lys Lys Ser Met Phe Arg Asp Lys Arg Ile Pro Val Val Lys Gly Val
 20 25 30
 Ser Phe Asp Cys Pro Thr Gly Ala Ser Val Ala Ile Ile Gly Glu Ser
 35 40 45
 Gly Ser Gly Lys Ser Thr Leu Ser Arg Met Ile Leu Gly Leu Glu Lys
 50 55 60
 Pro Asp Gln Gly Gln Val Thr Leu Asp Gly Gln Pro Val His Leu Lys
 65 70 75 80
 Lys Val Arg Arg His Arg Ile Ala Ala Val Phe Gln Asp Tyr Thr Ser
 85 90 95
 Ser Leu His Pro Phe His Thr Val Lys Asp Ile Leu Phe Glu Val Met
 100 105 110
 Asn Gln Cys Arg Cys Thr Ser Lys Glu Asn Met Glu Glu Tyr Val Thr
 115 120 125
 Val Leu Leu Arg Glu Val Gly Leu Lys Ser Asp Cys Leu Tyr Cys Tyr
 130 135 140
 Pro His Met Leu Ser Gly Gly Glu Ala Gln Arg Val Ala Ile Ala Arg
 145 150 155 160
 Ala Ile Cys Met Gln Pro Asp Tyr Ile Leu Phe Asp Glu Ala Ile Ser
 165 170 175
 Ser Leu Asp Met Ser Met Gln Thr Gln Ile Leu Asp Leu Leu Lys Arg
 180 185 190
 Leu Arg His Ser His Gln Leu Ser Tyr Ile Phe Ile Thr His Asp Ile
 195 200 205
 Gln Ala Ala Thr Tyr Ile Cys Asp Asp Leu Leu Ile Phe Lys Asn Gly
 210 215 220
 Cys Ile Glu Ala Arg Thr Ser Ile Ser Glu Leu His Arg Gln Gln Asn
 225 230 235 240
 Gly Tyr Thr Arg Glu Leu Ile Asp Lys Gln Leu Ser Ile
 245 250

<210> 4553

<211> 406

<212> PRT

<213> S.epidermidis

<400> 4553

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<210> 4554
<211> 286
<212> PRT
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<213> S.epidermidis

<400> 4554

Ser His Asp Ser Ile Trp Asn Ile Cys Thr Ser Ala His Phe Leu Lys
 1 5 10 15
 Lys Pro Ala Arg Asp Ile Asn Val Leu Pro Asn Thr Thr Cys Leu Gly
 20 25 30
 Gly Ile Lys Met Phe Lys Val Val Ile Cys Asp Asp Glu Arg Ile Ile
 35 40 45
 Arg Glu Gly Leu Lys Gln Met Val Pro Trp Glu Asp Tyr His Phe Thr
 50 55 60
 Thr Val Tyr Thr Ala Lys Asp Gly Val Glu Ala Leu Ser Leu Ile Arg
 65 70 75 80
 Gln His Gln Pro Glu Leu Val Ile Thr Asp Ile Arg Met Pro Arg Lys
 85 90 95
 Asn Gly Val Asp Leu Leu Asp Asp Ile Lys Asp Leu Asp Cys Gln Ile
 100 105 110
 Ile Ile Leu Ser Ser Tyr Asp Asp Phe Glu Tyr Met Lys Ala Gly Ile
 115 120 125
 Gln His His Val Leu Asp Tyr Leu Leu Lys Pro Val Asp His Thr Gln
 130 135 140
 Leu Glu His Ile Leu Asp Ile Leu Val Gln Arg Leu Leu Glu Arg Pro
 145 150 155 160
 His Ser Thr Asn Asp Asp Ala Ala Tyr His Thr Ala Phe Gln Pro Leu
 165 170 175
 Leu Lys Ile Asp Tyr Asp Asp Tyr Tyr Val Asn Gln Ile Leu Ser Gln
 180 185 190
 Ile Lys Gln His Tyr His Lys Lys Val Thr Val Leu Asp Leu Ile Asn
 195 200 205
 Pro Ile Asp Val Ser Glu Ser Tyr Ala Met Arg Thr Phe Lys Glu His
 210 215 220
 Val Gly Ile Thr Ile Val Asp Tyr Leu Asn Arg Tyr Arg Ile Leu Lys
 225 230 235 240
 Ser Leu His Leu Leu Asp Gln His Tyr Lys His Tyr Glu Ile Ala Glu
 245 250 255
 Lys Val Gly Phe Ser Glu Tyr Lys Met Phe Cys Tyr His Phe Lys Lys
 260 265 270
 Tyr Leu His Met Ser Pro Ser Asp Tyr Asn Lys Gln Ser Lys
 275 280 285

<210> 4555

<211> 86

<212> PRT

<213> S.epidermidis

<400> 4555

Cys Asp Asp Ser Ile Asn Ser Gly Lys Thr Val Tyr Ser Phe Thr Leu
 1 5 10 15
 Asp Asn Val Lys Asn Glu Thr Asn Thr Arg Ser Asn Cys Thr Trp Tyr
 20 25 30
 Arg Cys Cys Ile Tyr Phe Tyr Tyr Ser Ile Asn His Tyr Trp Ile Tyr
 35 40 45
 Leu Ser Val Ile His Lys Arg Arg Lys Lys Ser Leu Ile Ile Gln Lys
 50 55 60
 Asn Cys Ile Arg Glu Thr Glu Leu Trp Asp Glu Pro Gly Thr Gln Ile
 65 70 75 80

Asp Val Pro Gly Phe Leu
85

<210> 4556
<211> 55
<212> PRT
<213> S.epidermidis

<400> 4556
Ala Leu Cys Ser Glu Leu Pro Glu Ala Tyr Asp Thr Phe Thr Val Leu
1 5 10 15
Lys Thr Asp Ala Ala Thr Ile Asp Glu Ala Ser Val Val Leu Pro Ile
20 25 30
Leu Phe Ile Asn Phe Ile Asn Lys Leu Pro Pro Asn Met Tyr Asp Lys
35 40 45
Ser Ser Ile Glu Asp Lys Leu
50 55

<210> 4557
<211> 47
<212> PRT
<213> S.epidermidis

<400> 4557
Ile Ile Ser Ser Thr Met Thr Thr Phe Phe Tyr Phe Tyr Ile Phe Tyr
1 5 10 15
Ile Pro His Leu Ile Ile Ser Leu Asp Met Pro Lys Lys Ile Leu Ser
20 25 30
Phe Thr Ser Leu Phe Ile Tyr Leu Lys Ile Ser Leu Val His Ile
35 40 45

<210> 4558
<211> 41
<212> PRT
<213> S.epidermidis

<400> 4558
Ile Lys Ile Ser Phe Tyr Leu Ile Ile Leu Tyr His Phe Ile Val Glu
1 5 10 15
Asn Tyr Lys Asn Phe Tyr Val Val Cys Asp Lys Val Arg Lys His Thr
20 25 30
Phe Lys Phe Lys Ile Asn Leu Phe Ile
35 40

<210> 4559
<211> 51
<212> PRT
<213> S.epidermidis

<400> 4559
Leu Val Val Ser Gly Phe Leu Val Cys Asn Ile Thr Val Ile Asp Leu
1 5 10 15
Tyr Asp Asp Cys Leu Asn Ile Lys Ile Lys Ile Cys Ile Ser Lys Thr
20 25 30
Leu Cys Asn Asn Ile Tyr Lys Leu Lys Phe Ile Ile Ile Leu Arg Arg
35 40 45

Gly Leu Arg
50

<210> 4560

<211> 41

<212> PRT

<213> S.epidermidis

<400> 4560

Ala	Pro	Ser	Ser	Val	Asn	Met	Gln	Pro	Trp	Arg	Ile	Ala	Val	Asp	Glu
1				5					10					15	
Ser	Asp	Glu	Met	Ile	Glu	Lys	Val	Met	His	Ser	Phe	Gly	Phe	Asn	Ser
		20						25					30		
Arg	Gln	Leu	Thr	Thr	Ser	Ser	Ala	Met							
		35					40								

<210> 4561

<211> 121

<212> PRT

<213> S.epidermidis

<400> 4561

Asn	Ala	His	Ser	Ile	Thr	Pro	Gln	Tyr	Lys	Ile	Ser	Glu	Pro	Ile	Pro
1				5					10					15	
Ala	Gln	Asn	Asn	Met	Ala	Ala	His	Val	Lys	Leu	Leu	Asn	Ser	Gly	Leu
		20						25				30			
Ser	Val	Ala	Phe	Pro	Asn	Val	Thr	Phe	Pro	Tyr	Leu	Pro	Asn	Ala	Met
		35				40					45				
Tyr	Lys	Thr	Lys	Gln	Asn	Ile	Ala	Ser	Pro	Ile	Lys	Arg	Tyr	Thr	Asp
	50				55						60				
Pro	Ile	Glu	Leu	Glu	Met	Ala	Leu	Leu	Ile	Ser	Val	Met	Ile	Ile	Ser
65					70					75					80
Leu	Ala	Phe	Gly	Lys	Thr	Ile	Ile	Gly	Ile	Thr	Ala	Lys	Ser	Asn	Thr
				85					90					95	
Met	Thr	Thr	Pro	Met	Lys	Val	Val	Gln	Ser	Ile	Thr	Phe	Ser	Phe	Phe
			100					105					110		
Lys	Cys	Asp	Pro	Pro	Asn	Ile	Asn	Leu							
		115					120								

<210> 4562

<211> 738

<212> PRT

<213> S.epidermidis

<400> 4562

Tyr	Phe	Arg	Leu	Val	His	Asn	Lys	Asp	Lys	Leu	Met	Arg	Cys	Met	Tyr
1				5					10					15	
Ser	Met	Gln	Thr	Arg	Leu	Gly	Glu	Lys	Asp	Ile	Asn	Leu	Pro	Gln	Tyr
		20						25				30			
Tyr	Asn	Asn	Arg	Glu	Leu	Ser	Trp	Leu	Asp	Phe	Asn	Tyr	Arg	Val	Leu
		35				40					45				
Gln	Glu	Ser	Tyr	Asp	Lys	Asn	Pro	Leu	Leu	Glu	Lys	Leu	Asn	Phe	
	50					55				60					
Ile	Ser	Ile	Phe	Ser	Ser	Asn	Leu	Asp	Glu	Phe	Phe	Met	Val	Arg	Val
65					70					75				80	
Ala	Gly	Leu	Lys	Asp	Gln	Val	Lys	Met	Gly	Tyr	Asp	Lys	Pro	Glu	Asn

Ala Lys Asp Gly Phe Glu Val Asp Ser Glu Leu Val Lys Lys Phe Glu
180 185 190
Ile Ile Trp Ser
195

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<210> 4564
<211> 63
<212> PRT
<213> S.epidermidis
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<400> 4564

Tyr	Leu	Val	Ser	Thr	Tyr	Leu	Ile	Lys	Pro	Leu	Glu	Thr	Glu	Phe	Lys
1				5					10					15	
Gln	Ser	Leu	Glu	Ala	Leu	Leu	Leu	Ile	Ile	Asp	Ile	Tyr	Ala	Phe	Phe
			20					25					30		
Ser	Trp	Gly	Ile	Ile	Thr	Ile	Phe	Gln	Ser	Val	Leu	Phe	Asn	Phe	Asn
		35					40					45			
Glu	Leu	Phe	Arg	Val	Arg	Asn	Asn	Arg	Trp	Glu	Asn	Asn	Lys	Phe	
	50					55					60				

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<210> 4565
<211> 76
<212> PRT
<213> S.epidermidis
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<400> 4565															
Phe	Glu	Val	Ser	Phe	Cys	Leu	Phe	Leu	Arg	Leu	Cys	Ser	Ile	Phe	Leu
1				5					10					15	
Ser	Phe	Leu	Leu	Glu	Phe	Val	Trp	Trp	Leu	Ile	Ala	Ala	Tyr	Asn	Glu
			20					25					30		
Lys	Pro	Asn	Ala	His	Ile	Arg	Met	Ile	Thr	Thr	Ile	Val	Ala	Glu	Asn
		35					40					45			
Phe	Phe	Lys	Ala	Tyr	Ile	Leu	His	Pro	Phe	Tyr	Gln	Leu	Tyr	Phe	Ile
	50					55					60				
Ile	Ile	Leu	Phe	Phe	Ile	Val	Ser	Arg	Ile	Ile	Leu				
65					70					75					

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<210> 4566
<211> 248
<212> PRT
<213> S.epidermidis
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<400> 4566																
Lys	Arg	Val	Ser	Leu	Met	Ile	Glu	Leu	Ser	His	Ile	His	Lys	Ser	Phe	
1				5					10					15		
Asn	Glu	Thr	Glu	Val	Ile	Lys	Gly	Ile	Asp	Leu	Lys	Ile	Asn	Gln	Gly	
			20					25					30			
Glu	Val	Val	Thr	Leu	Ile	Gly	Arg	Ser	Gly	Ser	Gly	Lys	Thr	Thr	Leu	
			35				40					45				
Leu	Arg	Met	Ile	Asn	Ala	Leu	Glu	Ile	Pro	Thr	Glu	Gly	Thr	Val	Tyr	
			50			55					60					
Val	Asn	Gly	Met	Thr	Tyr	Asn	Thr	Lys	Asp	Lys	Lys	Ser	Gln	Ile	Lys	
65					70					75					80	
Val	Arg	Gln	Gln	Ser	Gly	Met	Val	Phe	Gln	Asn	Tyr	Asn	Leu	Phe	Pro	
				85					90					95		
His	Lys	Ser	Ala	Leu	Glu	Asn	Val	Met	Glu	Gly	Leu	Ile	Thr	Val	Lys	


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<210> 4567
<211> 129
<212> PRT
<213> S.epidermidis
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<210> 4568
<211> 49
<212> PRT
<213> S.epidermidis
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<400> 4568
Leu Asn Gly Phe Ile Phe Leu Met Leu Ile Ser Ile Ile Phe Val Leu
1          5          10          15
Arg Arg Asn Ser Phe Leu Leu Ile Leu Val Asn Tyr Ile Asn His Lys
          20          25          30
Ile Asn Tyr Ile Lys Phe Ser Phe Val Met Thr Ile Thr Lys Asn Asn

```

Phe 35 40 45

<210> 4569
 <211> 466
 <212> PRT
 <213> S.epidermidis

<400> 4569

Met	Asn	Thr	Ser	Gln	Lys	Phe	Arg	Gly	Asp	Asn	Arg	Leu	Leu	Leu	Gly
1				5					10					15	
Ile	Ile	Leu	Gly	Val	Ile	Thr	Phe	Trp	Leu	Phe	Ala	Gln	Ser	Leu	Val
		20						25					30		
Asn	Leu	Val	Val	Pro	Leu	Gln	Ser	Tyr	Asn	Ser	Asp	Ile	Gly	Thr	
		35					40				45				
Ile	Asn	Ile	Ala	Val	Ser	Leu	Ser	Ala	Leu	Phe	Ser	Gly	Leu	Phe	Ile
	50					55					60				
Val	Gly	Ala	Gly	Asp	Ile	Ala	Asp	Lys	Ile	Gly	Arg	Val	Lys	Val	Thr
65					70					75					80
Tyr	Ile	Gly	Leu	Ala	Leu	Asn	Ile	Val	Gly	Ser	Val	Leu	Ile	Ile	Ile
			85						90					95	
Thr	Pro	Leu	Pro	Ser	Leu	Leu	Ile	Ile	Gly	Arg	Ala	Ile	Gln	Gly	Leu
			100					105					110		
Ser	Ala	Ala	Cys	Ile	Met	Pro	Ala	Thr	Leu	Ala	Ile	Ile	Asn	Glu	Tyr
	115						120					125			
Tyr	Ile	Gly	Thr	Ala	Arg	Gln	Arg	Ala	Leu	Ser	Tyr	Trp	Ser	Ile	Gly
	130					135					140				
Ser	Trp	Gly	Gly	Ser	Gly	Val	Cys	Thr	Leu	Phe	Gly	Gly	Leu	Met	Ala
145					150					155					160
Thr	Asn	Leu	Gly	Trp	Arg	Ser	Ile	Phe	Ile	Val	Ser	Ile	Ile	Leu	Thr
			165						170					175	
Ile	Leu	Ser	Met	Phe	Leu	Ile	Lys	His	Thr	Pro	Glu	Thr	Lys	Ala	Glu
			180					185					190		
Pro	Ile	Gly	Asp	Gln	Pro	Thr	Glu	Thr	Lys	Lys	Phe	Asp	Val	Val	Gly
		195					200					205			
Leu	Ile	Ile	Leu	Val	Val	Ser	Met	Leu	Ser	Ile	Asn	Val	Ile	Ile	Thr
	210					215					220				
Gln	Thr	Ser	Gln	Phe	Gly	Leu	Phe	Ser	Pro	Phe	Ile	Leu	Gly	Leu	Ile
225					230					235					240
Ala	Ile	Phe	Val	Ile	Ser	Leu	Ile	Ile	Phe	Val	Ile	Tyr	Glu	Asn	Lys
			245						250					255	
Ile	Lys	Gln	Pro	Leu	Val	Asp	Phe	Asp	Ile	Phe	Lys	Asn	Lys	Gly	Tyr
			260					265					270		
Thr	Gly	Ala	Thr	Ile	Ser	Asn	Phe	Met	Leu	Asn	Gly	Val	Ala	Gly	Gly
	275						280					285			
Thr	Leu	Ile	Val	Val	Asn	Thr	Phe	Tyr	Gln	Gln	Lys	Leu	Asp	Phe	Asn
	290					295					300				
Ser	Gln	Glu	Thr	Gly	Tyr	Ile	Ser	Leu	Thr	Tyr	Leu	Ile	Ala	Val	Leu
305					310					315					320
Ile	Met	Ile	Arg	Val	Gly	Glu	Met	Ile	Leu	Gln	Ser	Leu	Gly	Pro	Lys
			325						330					335	
Arg	Pro	Leu	Leu	Leu	Gly	Ser	Ala	Leu	Thr	Val	Ile	Gly	Leu	Ile	Leu
			340					345					350		
Leu	Ser	Leu	Thr	Phe	Leu	Pro	Asn	Ala	Trp	Tyr	Ile	Ala	Ser	Ser	Val
		355					360					365			

Ile Gly Tyr Leu Leu Phe Gly Thr Gly Leu Gly Val Tyr Ala Thr Pro
 370 375 380
 Ser Thr Asp Thr Ala Val Ala Gln Ala Pro Asp Asp Lys Val Gly Val
 385 390 395 400
 Ala Ser Gly Val Tyr Lys Met Ala Ser Ser Leu Gly Asn Ala Phe Gly
 405 410 415
 Val Ala Ile Ser Ser Thr Val Tyr Ser Val Leu Ala Ala Gln Leu Asn
 420 425 430
 Leu Thr Leu Gly Gly Phe Thr Gly Val Met Phe Asn Ala Leu Ile Ala
 435 440 445
 Leu Leu Ala Phe Leu Ser Ile Leu Phe Leu Ile Pro Lys Lys Gln Ser
 450 455 460
 Asn Val
 465

<210> 4570

<211> 42

<212> PRT

<213> S.epidermidis

<400> 4570

Ile Gln Thr Ser Ser Trp Leu Asn Ile Arg Lys Val Thr Ala Gln Arg
 1 5 10 15
 Ala Glu Asn Asn Gln Lys Asn Tyr Lys Lys Asp Asn Phe Tyr Ile Ile
 20 25 30
 Ser Ile Glu Ile Val Phe Phe Tyr Leu Ser
 35 40

<210> 4571

<211> 57

<212> PRT

<213> S.epidermidis

<400> 4571

Val Gln Thr Ser Ser Trp Leu Asn Ile Arg Lys Val Thr Ala Gln Arg
 1 5 10 15
 Ala Glu Asn His Gln Lys Asn Tyr Lys Lys Asp Asn Phe Tyr Ile Ile
 20 25 30
 Ser Ile Glu Ile Val Phe Ile Tyr Leu Ser Trp Thr Phe Leu Ser Gln
 35 40 45
 Pro Leu Ser Tyr Ser Met Leu Ser Gln
 50 55

<210> 4572

<211> 54

<212> PRT

<213> S.epidermidis

<400> 4572

Asn Phe Gln Ser Ile Leu Cys Leu Lys Thr Ser Leu Lys Pro Val Asp
 1 5 10 15
 Ile Phe Ser Glu Val Asp Val Leu Tyr Ser Lys Met Ile Phe Ile Glu
 20 25 30
 Arg Cys Thr Leu Ser Ala Tyr Ile Pro Pro Asn Leu Ser Lys Cys Ile
 35 40 45
 Ile Ser Lys Tyr Asn Leu

50

<210> 4573

<211> 43

<212> PRT

<213> S.epidermidis

<400> 4573

Lys Cys Lys Ser Asn Leu Asn Ile Thr Leu Met Glu Ser Leu Arg Pro
 1 5 10 15
 His Arg Val Ser Trp Ala Phe Ser Met Ile Ser Gly Gln Gly Arg Leu
 20 25 30
 Ser Ile Val Leu Phe Gln Val Ala Leu Thr Leu
 35 40

<210> 4574

<211> 274

<212> PRT

<213> S.epidermidis

<400> 4574

Ile Gly Gly Leu Thr Met Ile Lys Ala Ile Ala Val Asp Met Asp Gly
 1 5 10 15
 Thr Phe Leu Asp Thr Asn Lys Gln Phe Asp Arg Asn Arg Phe Glu Thr
 20 25 30
 Ile Phe Lys Glu Leu Ile Asp Lys Asn Ile Lys Phe Ile Ala Ala Ser
 35 40 45
 Gly Asn Gln Phe Ala Lys Leu Lys Ser Ile Phe Gly Asp Arg Glu Met
 50 55 60
 Phe Phe Ile Ser Glu Asn Gly Ala Val Ile Tyr Lys Gly Asn Gln Leu
 65 70 75 80
 Tyr Asn Tyr Arg Ser Phe Asp Gln Tyr Ile Phe Gln Lys Val Val Asn
 85 90 95
 Tyr Leu Asn Leu Asn Gln Lys Ile Asn Asn Leu Ile Ile Cys Gly Val
 100 105 110
 Lys Ser Ala Tyr Ile Leu Lys Glu Thr Ser Glu Ala Phe Lys Gln Asp
 115 120 125
 Ala Arg Thr Tyr Tyr His Gln Leu Ile Glu Val Asp Ser Leu Gln Thr
 130 135 140
 Leu Pro Asp Asp Asp Tyr Val Lys Ile Ala Phe Asn Ile Asn Arg Gln
 145 150 155 160
 Thr His Pro Asp Leu Asp Glu Lys Leu Ala Leu Lys Phe Lys Asp Asp
 165 170 175
 Ile Lys Leu Val Ser Ser Gly Arg Asp Ser Ile Asp Val Ile Met Pro
 180 185 190
 Asn Met Thr Lys Gly Gln Ala Leu Ser Arg Leu Leu Lys Glu Trp Gln
 195 200 205
 Met Pro Ala Ser His Leu Met Ala Phe Gly Asp Ala Asn Asn Asp Lys
 210 215 220
 Asp Met Leu Glu Leu Ala Glu His Ser Tyr Val Met Ala Asn Ser Glu
 225 230 235 240
 Asp Gln Ser Leu Phe Asp Ile Ala Ser His Val Ala Pro Ser Asn Asp
 245 250 255
 Glu Gln Gly Val Leu Ser Thr Ile Glu Asn Val Val Leu Gly Tyr Ser
 260 265 270
 Asn Lys

<210> 4575
 <211> 521
 <212> PRT
 <213> S.epidermidis

<400> 4575

Leu	Ser	Glu	Ser	Ala	Asn	Ser	Phe	Tyr	Leu	His	Val	Asp	Asp	Phe	Leu
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Ile	Arg	Ile	Val	Lys	Glu	Cys	Leu	Leu	Thr	His	Val	Asn	Ser	Lys	Leu
			20					25					30		
Met	Leu	Trp	Arg	Phe	Val	Met	Gly	Ser	Phe	Phe	Asn	Arg	Met	Thr	Arg
		35					40					45			
Lys	Glu	Asn	Pro	Thr	Ile	Tyr	Gln	Ser	Lys	Asp	Gly	His	Leu	Lys	Arg
	50					55					60				
Thr	Leu	Arg	Val	Arg	Asp	Phe	Leu	Ala	Leu	Gly	Val	Gly	Thr	Ile	Val
65					70					75					80
Ser	Thr	Ser	Ile	Phe	Thr	Leu	Pro	Gly	Val	Val	Ala	Ala	Glu	His	Ala
				85					90					95	
Gly	Pro	Ala	Val	Ser	Leu	Ser	Phe	Leu	Leu	Ala	Ala	Ile	Val	Ala	Gly
			100					105					110		
Leu	Val	Ala	Phe	Thr	Tyr	Ala	Glu	Met	Ala	Ser	Thr	Met	Pro	Phe	Ala
		115					120					125			
Gly	Ser	Ala	Tyr	Ser	Trp	Ile	Asn	Val	Leu	Phe	Gly	Glu	Leu	Phe	Gly
	130					135					140				
Trp	Val	Ala	Gly	Trp	Ala	Leu	Leu	Ala	Glu	Tyr	Phe	Ile	Ala	Val	Ala
145					150					155					160
Phe	Val	Ala	Ser	Gly	Phe	Ser	Ala	Asn	Leu	Arg	Gly	Leu	Ile	Ala	Pro
			165					170						175	
Leu	Gly	Ile	Ser	Leu	Pro	Lys	Ser	Leu	Ser	Asn	Pro	Phe	Gly	Ser	Asn
		180						185					190		
Gly	Gly	Val	Ile	Asp	Ile	Ile	Ala	Val	Val	Ile	Ile	Leu	Thr	Ala	
		195					200				205				
Leu	Leu	Leu	Ser	Arg	Gly	Met	Asn	Glu	Ala	Ala	Arg	Met	Glu	Asn	Val
	210					215					220				
Leu	Val	Ile	Leu	Lys	Val	Leu	Ala	Ile	Ile	Leu	Phe	Val	Ile	Val	Gly
225				230						235				240	
Leu	Thr	Ala	Ile	Asn	Phe	Ser	Asn	Tyr	Ile	Pro	Phe	Ile	Pro	Glu	His
			245					250						255	
Lys	Val	Thr	Glu	Thr	Gly	Asp	Phe	Gly	Gly	Trp	Gln	Gly	Ile	Tyr	Ala
		260						265					270		
Gly	Val	Ser	Met	Ile	Phe	Leu	Ala	Tyr	Ile	Gly	Phe	Asp	Ser	Ile	Ala
	275						280					285			
Ala	Asn	Ser	Ala	Glu	Ala	Ile	Asn	Pro	Gln	Lys	Thr	Met	Pro	Arg	Gly
	290					295					300				
Ile	Leu	Gly	Ser	Leu	Ile	Val	Ala	Ile	Val	Leu	Phe	Val	Ala	Val	Ala
305				310						315				320	
Leu	Val	Leu	Val	Gly	Met	Phe	His	Tyr	Ser	Gln	Tyr	Ala	Asp	Asn	Ala
			325					330					335		
Glu	Pro	Val	Gly	Trp	Ala	Leu	Arg	Glu	Ser	Gly	His	Gly	Ile	Ile	Ala
		340						345					350		
Ala	Ile	Val	Gln	Ala	Ile	Ser	Val	Ile	Gly	Met	Phe	Thr	Ala	Leu	Ile
	355						360					365			
Gly	Met	Met	Leu	Ala	Gly	Ser	Arg	Leu	Leu	Tyr	Ser	Phe	Gly	Arg	Asp
	370					375					380				

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Gly Leu Leu Pro Ser Trp Leu Ser Gln Leu Asn His Lys His Leu Pro
 385 390 395 400
 Asn Arg Ala Leu Ala Ile Leu Thr Ile Ile Gly Val Val Ile Gly Ser
 405 410 415
 Met Phe Pro Phe Ala Phe Leu Ala Gln Leu Ile Ser Ala Gly Thr Leu
 420 425 430
 Val Ala Phe Met Phe Val Ser Leu Ala Met Tyr Arg Leu Arg Lys Arg
 435 440 445
 Glu Gly Lys Asp Leu Pro Lys Pro Glu Phe Lys Leu Pro Leu Tyr Pro
 450 455 460
 Ile Leu Pro Ala Ile Thr Phe Ile Leu Val Leu Leu Val Phe Trp Gly
 465 470 475 480
 Leu Ser Phe Glu Ala Lys Leu Tyr Thr Leu Ile Trp Phe Ile Val Gly
 485 490 495
 Ile Ile Ile Tyr Leu Ile Tyr Gly Ile Arg His Ser Lys Lys Asn Asp
 500 505 510
 Glu Glu Ala Tyr Gln Val Pro Arg Lys
 515 520

<210> 4576
 <211> 47
 <212> PRT
 <213> S.epidermidis

<400> 4576
 Val His Leu Ser Tyr Ser Phe Pro Pro Phe Leu Arg Tyr Ile Ile Ser
 1 5 10 15
 Ile Lys Leu Ile Asn Asn Leu Val Arg Asp Asp Tyr His Met Leu Asn
 20 25 30
 Val Lys Ser Phe Ala Thr Phe Gly Tyr Ser Ile His Asn Cys Val
 35 40 45

<210> 4577
 <211> 66
 <212> PRT
 <213> S.epidermidis

<400> 4577
 Ile Ala Leu Ser Ser Ala Phe Ser Leu Ala Asn Met Ile Val Lys Ile
 1 5 10 15
 Thr Val Met Val Ala Asn Ile Pro Pro Met Arg Ile Ala Asp Pro Arg
 20 25 30
 Lys Ser Ala Ser Ser Gly Ala Ile Gly Lys Phe Ile Asp Lys Gln Asn
 35 40 45
 Val Thr Lys Lys Asn Val Asp Asp Gly Pro Ala Ile Phe Ser Ala Leu
 50 55 60
 Asn Val
 65

<210> 4578
 <211> 103
 <212> PRT
 <213> S.epidermidis

<400> 4578
 Tyr Asn Met Ser Phe Asn Ile Trp Met Trp Ile Leu Leu Val Leu Phe

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1           5           10           15
Ile Val Gly Thr Ile Ala Val Ile Leu Ile Leu Thr Val Gly Ser Val
20           25           30
Leu Glu Glu Arg Ser Tyr Asp Arg Arg Ser Glu Asp Glu Lys Arg Lys
35           40           45
Asn Leu Glu Lys Asn Leu Glu Met Ser Lys Gly His Thr Asp Val Ser
50           55           60
Gln Glu Ser Ser Asn Gly Glu Glu Gln Val Thr Gln Glu His Ser Gln
65           70           75           80
His Val Val Gln Asp His Gln Gln Thr His Gln Asn Ile Asn Gln Ser
85           90           95
Thr Gln Asp Asn Arg Asn Asn
100

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<210> 4579

<211> 74

<212> PRT

<213> S.epidermidis

<400> 4579

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Leu Tyr Ala Ser Gly Val Lys Val Ala Ile Pro Val Leu Gly Ser Tyr
1           5           10           15
Val Ala Asp Pro Asp Arg Phe Ile Cys Ser Leu Lys Leu Ser Leu Phe
20           25           30
Thr Thr Thr Glu Leu Asp Val Arg Leu Glu Val Val Val Val Asp Val
35           40           45
Val Val Gly Ala Ala Ile Val Phe Lys Thr Val Asn Leu Leu Asn Val
50           55           60
Leu Lys Phe Ala Lys Glu Val Gly Leu Asp
65           70

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<210> 4580

<211> 41

<212> PRT

<213> S.epidermidis

<400> 4580

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Tyr Pro Lys Ser Thr Leu Tyr Ser Pro Ser Lys Cys Leu His Phe Thr
1           5           10           15
Ser Asn Val Pro Pro Ile Gly Ile Gln Val Asn Tyr Leu Ala Tyr Ile
20           25           30
Leu Trp Asp Ser Ile Met Cys Tyr Leu
35           40

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<210> 4581

<211> 485

<212> PRT

<213> S.epidermidis

<400> 4581

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His Leu Thr Leu Thr Tyr Ile Glu Gly Glu Thr Met Ser Gly Lys Leu
1           5           10           15
Glu Glu Leu Gln Leu Lys Val Ala Arg Leu Ser Arg Arg Thr His Glu
20           25           30
Leu Gly Ile Pro Ile Met Val Leu Phe Glu Gly Ile Pro Ala Ser Gly
35           40           45

```

Lys Thr Arg Leu Ser Asn Glu Leu Leu Leu His Leu Asp Ala Lys Tyr
 50 55 60
 Ser Arg Phe Ile Ala Thr Lys Ser Pro Glu Ser Asn Asp Leu Arg Tyr
 65 70 75 80
 Gln Phe Leu Gln Lys Tyr Trp Asn Thr Leu Pro Gln Lys Gly Asn Ile
 85 90 95
 Asn Ile Tyr Phe Arg Ser Trp Tyr Ser His Phe Leu Asp Tyr Lys Glu
 100 105 110
 Asn Lys Ile Lys His Asp Gln Tyr Lys Asn Tyr Asp Val Leu Val Asn
 115 120 125
 Gln Ile Tyr His Phe Glu Ser Met Leu Lys Asn Asp Asn Tyr Glu Ile
 130 135 140
 Ile Lys Phe Phe Ile Glu Ile Asn Glu Glu Lys Arg Asn Glu His Ile
 145 150 155 160
 Gln Gln Thr Lys Asp Asn Pro Leu Thr Arg Trp Lys Val Gln Glu Tyr
 165 170 175
 Glu Asn Val Ile Pro Gln Glu Ser Tyr Leu Asn Gln Met His Gln Phe
 180 185 190
 Ile Asn Lys Asp Lys Asp Trp Lys Val Ile Asp Tyr Thr Glu Arg Glu
 195 200 205
 His Ala Phe Glu Lys Met Tyr Leu His Leu Ile Asp Arg Leu Glu Gln
 210 215 220
 Ala Ile Lys Lys Val Glu Gln Gln Thr Thr Lys Val Asn Gly Lys Phe
 225 230 235 240
 Thr Ser Ser Phe Thr Thr Ser Leu Phe Asn Asn Asn Leu Glu Lys Val
 245 250 255
 Asp Lys Lys Thr Tyr Lys Asn Leu Ile Val Glu Leu Gln Gln Arg Met
 260 265 270
 Arg Glu Ile Gln Phe Ala Leu Tyr Glu Arg Lys Ile Pro Leu Val Leu
 275 280 285
 Val Phe Glu Gly Met Asp Ala Ala Gly Lys Gly Gly Asn Ile Lys Arg
 290 295 300
 Ile Arg Glu Lys Leu Asp Pro Thr Gly Tyr Glu Val Asn Gly Ile Ser
 305 310 315 320
 Ala Pro Thr Asp Val Glu Leu Lys His His Tyr Leu Trp Arg Phe Ala
 325 330 335
 Lys Lys Met Pro Lys Ser Gly His Ile Lys Ile Phe Asp Arg Ser Trp
 340 345 350
 Tyr Gly Arg Val Leu Val Glu Arg Val Glu Gly Phe Ala Ser Gln Asn
 355 360 365
 Glu Trp Gln Arg Ala Ser Asp Glu Ile Asn Gln Phe Glu Lys Met Trp
 370 375 380
 Thr Asp Glu Gly Thr Ile Ile Leu Lys Phe Phe Leu Cys Leu Asp Lys
 385 390 395 400
 Asp Glu Gln Leu Lys Arg Phe Lys Asp Arg Glu Asn Asn Pro Asp Lys
 405 410 415
 Gln Trp Lys Ile Thr Glu Glu Asp Trp Arg Asn Arg Glu Lys Trp Asp
 420 425 430
 Glu Tyr Leu Glu Ala Ser His Asp Met Ile Glu Ser Thr Asn Thr Ser
 435 440 445
 Tyr Ala Pro Trp Tyr Ile Val Pro Ala Asp His Lys Lys Thr Ser Arg
 450 455 460
 Ile Glu Val Leu Lys Thr Ile Ile Arg Lys Cys Glu Glu Val Leu Trp
 465 470 475 480
 Gly Val Lys Thr Tyr
 485

<210> 4582
 <211> 436
 <212> PRT
 <213> S.epidermidis

<400> 4582

Phe	Lys	Thr	Phe	His	Asn	Phe	Cys	Lys	Ala	Leu	Thr	Tyr	Leu	Leu	Tyr
1				5					10					15	
Ile	Pro	Gly	His	Val	Cys	Tyr	Ile	Ser	Leu	Tyr	Lys	Thr	Asn	Phe	Leu
			20					25					30		
Trp	Tyr	Asp	Thr	Ser	Ala	Thr	Ser	Lys	Asn	Glu	Arg	Met	Ser	His	Leu
		35					40					45			
Met	Asn	Ile	Gly	Ile	Asp	Lys	Ile	Ser	Phe	Tyr	Val	Pro	Lys	Tyr	Tyr
	50					55					60				
Val	Asp	Met	Ala	Lys	Leu	Ala	Glu	Ala	Arg	Gln	Val	Asp	Pro	Asn	Lys
65					70					75					80
Phe	Leu	Ile	Gly	Ile	Gly	Gln	Thr	Glu	Met	Ala	Val	Ser	Pro	Val	Asn
				85					90					95	
Gln	Asp	Ile	Val	Ser	Met	Gly	Ala	Asn	Ala	Ala	Lys	Asp	Ile	Ile	Thr
			100					105					110		
Glu	Glu	Asp	Lys	Lys	Asn	Ile	Gly	Met	Val	Ile	Val	Ala	Thr	Glu	Ser
		115					120					125			
Ala	Ile	Asp	Asn	Ala	Lys	Ala	Ala	Ala	Val	Gln	Ile	His	His	Leu	Leu
		130				135					140				
Gly	Ile	Gln	Pro	Phe	Ala	Arg	Cys	Phe	Glu	Met	Lys	Glu	Ala	Cys	Tyr
145					150					155					160
Ala	Ala	Thr	Pro	Ala	Ile	Gln	Leu	Ala	Lys	Asp	Tyr	Leu	Ala	Gln	Arg
				165					170					175	
Pro	Asn	Glu	Lys	Val	Leu	Val	Ile	Ala	Ser	Asp	Thr	Ala	Arg	Tyr	Gly
			180					185					190		
Ile	His	Ser	Gly	Gly	Glu	Pro	Thr	Gln	Gly	Ala	Gly	Ala	Val	Ala	Met
		195					200					205			
Met	Ile	Ser	His	Asn	Pro	Ser	Ile	Leu	Lys	Leu	Asn	Asp	Asp	Ala	Val
	210					215					220				
Ala	Tyr	Thr	Glu	Asp	Val	Tyr	Asp	Phe	Trp	Arg	Pro	Thr	Gly	His	Gln
225					230					235					240
Tyr	Pro	Leu	Val	Ala	Gly	Ala	Leu	Ser	Lys	Asp	Ala	Tyr	Ile	Lys	Ser
				245					250					255	
Phe	Gln	Glu	Ser	Trp	Asn	Glu	Tyr	Ala	Arg	Arg	His	Asn	Lys	Thr	Leu
			260					265					270		
Ala	Asp	Phe	Ala	Ser	Leu	Cys	Phe	His	Val	Pro	Phe	Thr	Lys	Met	Gly
		275					280					285			
Gln	Lys	Ala	Leu	Asp	Ser	Ile	Ile	Asn	His	Ala	Asp	Glu	Thr	Thr	Gln
	290					295					300				
Asp	Arg	Leu	Asn	Ser	Ser	Tyr	Gln	Asp	Ala	Val	Asp	Tyr	Asn	Arg	Tyr
305					310					315					320
Val	Gly	Asn	Ile	Tyr	Thr	Gly	Ser	Leu	Tyr	Leu	Ser	Leu	Ile	Ser	Leu
				325					330					335	
Leu	Glu	Thr	Arg	Asp	Leu	Lys	Gly	Gly	Gln	Thr	Ile	Gly	Leu	Phe	Ser
			340					345					350		
Tyr	Gly	Ser	Gly	Ser	Val	Gly	Glu	Phe	Phe	Ser	Gly	Thr	Leu	Val	Asp
		355					360					365			
Gly	Phe	Lys	Glu	Gln	Leu	Asp	Val	Glu	Arg	His	Lys	Ser	Leu	Leu	Asn
	370					375					380				
Asn	Ser	Ile	Glu	Val	Ser	Val	Asp	Glu	Tyr	Glu	His	Phe	Phe	Lys	Arg

385 390 395 400
 Phe Asp Gln Leu Glu Leu Asn His Glu Leu Glu Lys Ser Asn Ala Asp
 405 410 415
 Arg Asp Ile Phe Tyr Leu Lys Ser Ile Asp Asn Asn Ile Arg Glu Tyr
 420 425 430
 His Ile Ala Glu
 435

<210> 4583
 <211> 696
 <212> PRT
 <213> S.epidermidis

<400> 4583
 Ser Tyr Leu Phe Met Leu Phe Leu Trp His Val Asn Lys Lys Ile Glu
 1 5 10 15
 Arg Asn Glu Leu Ile Met Phe Lys Lys Leu Phe Gly Gln Met Gln Arg
 20 25 30
 Ile Gly Lys Ala Leu Met Leu Pro Val Ala Ile Leu Pro Ala Ala Gly
 35 40 45
 Leu Leu Leu Ala Ile Gly Thr Ala Phe Gln Gly Glu Ala Leu Gln His
 50 55 60
 Tyr Leu Pro Phe Ile Lys Asn Asp Ile Val Gln Gln Ile Ala Asn Met
 65 70 75 80
 Leu Thr Gly Ala Gly Gly Ile Ile Phe Asp Asn Leu Pro Ile Ile Phe
 85 90 95
 Ala Leu Gly Val Ala Ile Gly Leu Ala Gly Gly Asp Gly Val Ala Ala
 100 105 110
 Ile Ala Ala Phe Val Gly Phe Ile Ile Leu Asn Lys Thr Met Gly Ala
 115 120 125
 Phe Leu His Val Thr Pro Asp Lys Leu Ser Asp Pro Thr Asn Gly Tyr
 130 135 140
 Ala Asn Val Leu Gly Ile Pro Thr Leu Gln Thr Gly Val Phe Gly Gly
 145 150 155 160
 Ile Ile Ile Gly Ala Leu Ala Ala Trp Cys Tyr Asn Lys Phe Tyr Asn
 165 170 175
 Ile Thr Leu Pro Ser Tyr Leu Gly Phe Phe Ala Gly Lys Arg Phe Val
 180 185 190
 Pro Ile Met Met Ala Thr Thr Ser Phe Ile Leu Ala Phe Pro Met Ala
 195 200 205
 Ile Ile Trp Pro Thr Ile Gln Asn Gly Leu Asn Ala Phe Ser Glu Gly
 210 215 220
 Leu Leu Asp Ser Asn Thr Gly Leu Ala Val Phe Leu Phe Gly Phe Ile
 225 230 235 240
 Lys Arg Leu Leu Ile Pro Phe Gly Leu His His Ile Phe His Ala Pro
 245 250 255
 Phe Trp Phe Glu Phe Gly Ser Trp Lys Asn Ala Ala Gly Glu Ile Ile
 260 265 270
 Arg Gly Asp Gln Arg Ile Phe Ile Glu Gln Ile Arg Glu Gly Ala His
 275 280 285
 Leu Thr Ser Gly Lys Phe Met Gln Gly Glu Phe Pro Val Met Met Phe
 290 295 300
 Gly Leu Pro Ala Ala Ala Leu Ala Ile Tyr Gln Thr Ala Lys Pro Glu
 305 310 315 320
 Asn Lys Lys Val Val Ala Gly Leu Met Ile Ser Ala Ala Leu Thr Ser
 325 330 335


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<210> 4585
<211> 529
<212> PRT
<213> S.epidermidis
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Gly 1	Val	Leu	Phe	Met 5	Ser	Val	Leu	Thr	Val 10	Met	Gln	Phe	Ile	Val 15	Asn
Ile	Ile	Ile	Met 20	Ile	Val	Leu	Leu	Thr 25	Ile	Met	Ile	Leu	Gly 30	Gly	Ile
Trp	Leu	Phe 35	Lys	Asp	Lys	Gly	Gln 40	Asn	Gln	His	Ser	Val 45	Leu	Arg	Asn
Phe	Pro 50	Val	Leu	Gly	Arg	Ile 55	Arg	Tyr	Ile	Ser	Glu 60	Lys	Ile	Gly	Pro
Glu 65	Leu	Arg	Gln	Tyr 70	Phe	Ala	Asn	Asp 75	Asn	Glu	Gly	Lys	Pro	Phe 80	
Ser	Arg	Ser	Asp 85	Tyr	Lys	Asn	Ile	Val 90	Leu	Ala	Gly	Lys	Tyr 95	Lys	Ser
Arg	Met	Thr	Ser 100	Phe	Gly	Thr	Gly 105	Lys	Asp	Tyr	Leu	Glu	Gly 110	Phe	Tyr
Ile	Gln	Asn 115	Thr	Met	Phe	Pro	Leu 120	Gln	Ala	Thr	Glu	Leu 125	His	Ile	Asp
His	Thr 130	Glu	Phe	Ile	Ser	Thr 135	Phe	Leu	Tyr	His	Ile 140	Glu	Asn	Glu	Arg
Leu 145	Phe	Ser	Arg	Glu 150	Glu	Tyr	Arg	Lys	Ser	Ala 155	Gln	Val	Asp	Pro	Phe 160
Phe	Leu	Thr	Asp 165	Glu	His	Ala	Val	Val 170	Leu	Gly	Ser	Asn	Leu	Lys 175	His
Pro	Phe	Lys	Ile 180	Lys	Arg	Leu	Val	Gly 185	Gln	Ser	Gly	Met	Ser 190	Tyr	Gly
Ala	Leu	Gly 195	Lys	Asn	Ala	Ile	Thr 200	Ala	Leu	Ser	Met	Gly 205	Leu	Ala	Lys
Ala	Gly 210	Thr	Trp	Met	Asn	Thr 215	Gly	Glu	Gly	Gly	Leu 220	Ser	Glu	Tyr	His
Leu 225	Lys	Gly	Asn	Gly 230	Asp	Ile	Ile	Tyr	Gln	Ile 235	Gly	Pro	Gly	Leu	Phe 240
Gly	Val	Arg	Asp 245	His	Asp	Gly	Asn	Phe 250	Asn	Arg	Asp	Met	Phe	Ile	Asn
Leu	Ala	Glu	His 260	Asn	Asn	Val	Arg	Ala 265	Phe	Glu	Ile	Lys	Leu	Ala	Gln
Gly	Ala	Lys 275	Thr	Arg	Gly	Gly	His 280	Met	Glu	Gly	Asn	Lys	Val	Thr	Glu
Glu	Ile 290	Ala	Arg	Ile	Arg	Asn 295	Val	Lys	Pro	Tyr	Glu	Thr	Ile	Asn	Ser
Pro	Asn 305	Arg	Phe	Asp	Phe 310	Ile	Lys	Asn	Pro	Thr 315	Asp	Leu	Leu	Asn	Phe 320
Val	Asn	His	Leu	Gln 325	Ser	Ile	Gly	Gln	Lys 330	Pro	Val	Gly	Phe	Lys	Ile

Gly Glu Arg Lys Glu Val Arg Glu Trp
210 215

<210> 4590

<211> 47

<212> PRT

<213> S.epidermidis

<400> 4590

Ile	Arg	Cys	Pro	Thr	Pro	Val	Tyr	Leu	Cys	Phe	Lys	Ile	Ile	Phe	Ser
1				5				10						15	
Phe	Phe	Asn	Leu	Leu	Tyr	Ile	Ile	Ile	Tyr	Asp	Asn	Val	Ala	Leu	Val
		20					25					30			
Thr	Tyr	Pro	Ser	Leu	Thr	Trp	Lys	Thr	Met	Phe	Pro	Phe	Pro	Thr	
		35					40					45			

<210> 4591

<211> 462

<212> PRT

<213> S.epidermidis

<400> 4591

Ala	Thr	Thr	Leu	Tyr	Val	Lys	Val	Cys	Ser	Asn	Met	Val	Gln	Val	Lys
1			5					10						15	
Ile	Gly	Asn	Cys	Thr	Ile	Asn	Gly	Ile	His	Lys	Lys	Asn	Ile	Asp	Val
		20					25					30			
Phe	Leu	Gly	Ile	Pro	Tyr	Ala	Lys	Ser	Phe	Asn	Lys	Ile	Ser	Arg	Phe
		35					40				45				
Gln	His	Ser	Lys	Leu	Met	Glu	Leu	Ser	Lys	Pro	Met	Ile	Asp	Ala	Thr
	50				55					60					
His	Ile	Gln	Ser	Ile	Pro	Gln	Pro	Tyr	Asn	Ser	Leu	Glu	Asp	Phe	
65				70					75					80	
Phe	Ser	Met	Thr	Asp	Ser	Ser	Phe	Asn	Ser	Phe	Lys	Gln	Asn	Asp	Tyr
			85					90					95		
Cys	Leu	Phe	Leu	Asn	Ile	Trp	Lys	Pro	Ser	Ser	Asn	Gln	Asn	His	Leu
			100				105						110		
Pro	Val	Val	Ile	Tyr	Phe	Tyr	Gly	Gly	Ser	Phe	Leu	Gln	Gly	His	Gly
		115					120					125			
Thr	Ala	Glu	Leu	Tyr	Cys	Pro	Glu	His	Ile	Val	Glu	Gln	Glu	Asn	Ile
	130					135					140				
Ile	Val	Val	Thr	Phe	Asn	Tyr	Arg	Leu	Gly	Ala	Leu	Gly	Tyr	Leu	Asp
145					150				155					160	
Trp	Ser	Tyr	Phe	Asn	Gln	His	Leu	Asn	Tyr	Asn	Asn	Gly	Ile	Ser	Asp
			165					170					175		
Gln	Ile	Asn	Val	Leu	Arg	Trp	Val	His	Gln	Tyr	Ile	Glu	His	Phe	Gly
		180					185					190			
Gly	Asp	Pro	Asn	Asn	Val	Thr	Leu	Met	Gly	Gln	Ser	Ala	Gly	Ser	Met
		195				200						205			
Ser	Ile	Met	Thr	Leu	Met	Gln	Met	Pro	Glu	Leu	Asp	Asp	Tyr	Tyr	His
	210					215					220				
Lys	Val	Met	Leu	Leu	Ser	Gly	Thr	Leu	Thr	Thr	Asp	Thr	Pro	Leu	Asn
225					230				235					240	
Ala	His	Thr	Lys	Val	Gln	His	Phe	Ser	Gln	Leu	Met	Arg	His	Tyr	Phe
			245						250					255	
Pro	Asn	Lys	Thr	Leu	Lys	Thr	Leu	Asn	Ser	Asp	Asp	Ile	Leu	Tyr	Leu
			260					265					270		

Met Glu Ser Gln Lys Ile Glu Arg Gly Arg Ser Arg Gly Leu Asp Leu
 275 280 285
 Ile Tyr Gln Pro Ile Lys Asp His His Met Ser Arg Ser Ile Lys Lys
 290 295 300
 Phe Pro Lys Pro Thr Phe Met Ser Tyr Thr His Asp Glu Gly Asp Ile
 305 310 315 320
 Tyr Ile Glu Asp Ala Thr Arg Thr Leu Pro Ser Glu Arg Phe Ile His
 325 330 335
 Leu Met Ser Gln Tyr Gly Thr His Val Glu Lys Asn Asp Ala Leu Thr
 340 345 350
 Met Lys Gln Gln Arg Asn Val Ile Thr Glu Tyr Cys Phe Val Arg Pro
 355 360 365
 Ile Tyr Leu Phe Leu Asn Gln Met Asn Ser Cys Asp Thr Trp Leu Ala
 370 375 380
 Arg Phe Asp Trp His Gln Pro His Thr Ser Tyr Phe Lys Ser Ala Tyr
 385 390 395 400
 His Ile Leu Asp Leu Val Phe Trp Phe Gly His Leu Ser Ile Leu Thr
 405 410 415
 Lys Asn His Tyr Ser Val Thr Gln His Asp Met Asn Leu Ser Arg Asn
 420 425 430
 Met Ile Ser Asp Leu Ala Tyr Phe Ala Arg Lys Gly Lys Met Pro Trp
 435 440 445
 Lys Cys Tyr Glu Pro Gln His Gln Ala Leu His Ile Tyr Arg
 450 455 460

<210> 4592

<211> 206

<212> PRT

<213> S.epidermidis

<400> 4592

Asn Ala Met Leu Arg Val Ala Leu Ala Lys Gly Arg Leu Leu Lys Ser
 1 5 10 15
 Phe Ile Glu Tyr Leu Gln Gln Val Asn Gln Ile Asp Ile Ala Thr Val
 20 25 30
 Leu Leu Asn Arg Gln Arg Gln Leu Leu Leu Thr Val Asp Asn Ile Glu
 35 40 45
 Met Ile Leu Val Lys Gly Ser Asp Val Pro Thr Tyr Val Glu Gln Gly
 50 55 60
 Ile Ala Asp Val Gly Ile Val Gly Ser Asp Ile Leu Asn Gly Gln Lys
 65 70 75 80
 Tyr Asn Ile Asn Lys Leu Leu Asp Leu Pro Phe Gly Lys Cys His Phe
 85 90 95
 Ala Leu Ala Ala Lys Pro Glu Thr Ser Arg Tyr Lys Lys Val Ala Thr
 100 105 110
 Ser Tyr Val His Thr Ala Thr Gln Phe Phe Asn Lys Glu Gly Met Asp
 115 120 125
 Val Glu Val Ile His Leu Asn Gly Ser Val Glu Leu Ser Cys Val Val
 130 135 140
 Asp Met Val Asp Ala Ile Val Asp Ile Val Gln Thr Gly Ser Thr Leu
 145 150 155 160
 Thr Ala Asn Gly Leu Val Glu Lys Lys His Ile Ser Glu Ile Asn Ala
 165 170 175
 Lys Leu Ile Thr Asn Lys Glu Ser Tyr Phe Lys Gln Ser Ser Glu Ile
 180 185 190
 Glu Arg Leu Ile Lys Gln Leu Gly Val Ser Ile Asn Tyr Ala

195

200

205

<210> 4593

<211> 275

<212> PRT

<213> S.epidermidis

<400> 4593

Glu	Asp	Met	Phe	Lys	Asn	Asn	Lys	Ser	Ile	Glu	Asp	Thr	Tyr	Ala	Thr
1				5					10					15	
Lys	Pro	Ile	Ile	Gln	Asn	Ile	Val	Gly	Gln	Ala	Gln	Ile	Lys	Gln	Val
		20						25					30		
Met	Ala	Lys	Gln	Thr	Pro	Met	Arg	Tyr	Thr	Leu	Lys	Ala	Ile	Met	Ala
		35					40					45			
Gly	Phe	Leu	Leu	Ser	Ile	Val	Thr	Val	Phe	Met	Leu	Ala	Ile	Lys	Thr
	50					55					60				
Gln	Phe	Ala	Ser	Thr	His	Asn	Asp	Gly	Leu	Ile	Asn	Leu	Met	Gly	Ala
65					70					75					80
Ile	Ala	Phe	Ser	Leu	Gly	Leu	Val	Leu	Val	Val	Leu	Thr	Asn	Ser	Glu
				85					90					95	
Leu	Leu	Thr	Ser	Asn	Phe	Met	Tyr	Leu	Thr	Val	Gly	Trp	Tyr	Tyr	Lys
			100					105					110		
Ala	Ile	Ser	Val	Ser	Lys	Met	Ile	Trp	Ile	Phe	Ile	Phe	Cys	Phe	Ile
		115					120					125			
Gly	Asn	Ile	Leu	Gly	Gly	Phe	Ile	Leu	Phe	Phe	Leu	Met	Lys	Tyr	Ala
	130					135					140				
His	Val	Met	Thr	Pro	Glu	Met	Thr	Asp	Ser	Leu	Thr	Ala	Leu	Val	His
145					150					155					160
Lys	Lys	Thr	Val	Glu	Ser	Thr	Trp	Leu	Asn	Ile	Leu	Ile	Lys	Gly	Ile
			165						170					175	
Phe	Cys	Asn	Phe	Phe	Ile	Asn	Ile	Gly	Ile	Phe	Ile	Ser	Met	Gln	Phe
		180						185					190		
Lys	Glu	Gly	Leu	Ala	Lys	Ala	Phe	Phe	Ile	Ala	Cys	Gly	Val	Ile	Val
		195					200					205			
Phe	Val	Phe	Met	Gly	Tyr	Glu	His	Val	Val	Phe	Asn	Ala	Gly	Leu	Tyr
	210					215					220				
Ala	Gly	Met	Met	Phe	Phe	Asn	Met	Asp	Gly	Leu	Ser	Trp	Leu	Gly	Val
225					230					235					240
Leu	Lys	Asn	Ile	Val	Phe	Ala	Phe	Leu	Gly	Asn	Tyr	Ile	Gly	Gly	Gly
			245						250					255	
Ile	Phe	Ile	Gly	Leu	Val	Tyr	Ala	Tyr	Leu	Asn	Gly	Lys	Arg	Asp	Ser
			260					265					270		
Leu	Gln	Pro													
		275													

<210> 4594

<211> 135

<212> PRT

<213> S.epidermidis

<400> 4594

Lys	Gly	Val	Leu	Leu	Met	Glu	Lys	Ala	Lys	Phe	Val	Ile	Lys	Leu	Ile
1				5						10				15	
Leu	Gln	Leu	Ala	Leu	Ile	Met	Leu	Ile	Thr	Phe	Ile	Gly	Thr	Glu	Val
		20						25					30		
Gln	Lys	Leu	Leu	His	Ile	Pro	Leu	Ala	Gly	Ser	Ile	Val	Gly	Leu	Met

		35					40				45								
Leu	Phe	Phe	Leu	Leu	Leu	Gln	Phe	Lys	Ile	Val	Pro	Glu	Ser	Trp	Ile				
	50					55					60								
Asn	Val	Gly	Ala	Asp	Phe	Leu	Leu	Lys	Thr	Met	Val	Phe	Phe	Phe	Ile				
65					70					75					80				
Pro	Ser	Val	Val	Gly	Ile	Met	Asp	Val	Ala	Ser	Asn	Ile	Thr	Met	Asn				
				85					90					95					
Tyr	Ile	Leu	Phe	Phe	Ile	Val	Ile	Ile	Ile	Gly	Thr	Cys	Leu	Val	Ala				
			100					105					110						
Leu	Ser	Ser	Gly	Tyr	Ile	Ala	Glu	Lys	Met	Leu	Glu	Lys	Ser	Asn	Thr				
		115					120					125							
Arg	Lys	Gly	Thr	Asp	His	Ser													
	130					135													

<210> 4595

<211> 94

<212> PRT

<213> S.epidermidis

<400> 4595

Ser	Ile	Pro	Pro	Val	Ala	Cys	Asn	Val	Pro	Pro	Ala	Ile	Pro	Ile	Asp				
1				5				10					15						
Asn	Met	Ile	Asn	Thr	Ala	Val	Thr	Gly	Ala	Glu	Pro	Gly	Gly	Asn	Trp				
			20					25				30							
Asn	Pro	Asn	Ile	Met	Ile	Ser	Cys	Ala	Thr	Ile	Ala	Lys	Met	Pro	His				
		35				40					45								
Pro	Ser	Ala	Pro	Ala	Val	Leu	Asn	Pro	Asn	Asn	Ile	Ala	Arg	Ile	Met				
	50					55				60									
Ile	Met	Ile	Ser	Met	Ile	Asn	Asn	Asn	Met	Glu	Glu	Ser	Pro	Asn	Leu				
65					70					75					80				
Cys	Arg	Thr	Ile	Phe	Thr	Ser	Ile	Phe	Tyr	His	Phe	Asn	Met						
				85				90											

<210> 4596

<211> 76

<212> PRT

<213> S.epidermidis

<400> 4596

Pro	Phe	Lys	Pro	Thr	Arg	Gly	Glu	Met	Arg	Pro	Pro	Lys	Ile	Asn	Trp				
1				5				10					15						
Asn	Arg	Pro	Ser	Lys	Leu	Glu	Ala	Leu	Pro	Leu	Pro	Pro	Val	Arg	Ser				
			20					25				30							
Ala	Ile	Ala	Ile	Glu	Lys	Gln	Ser	Gly	Ala	Ile	Glu	Val	Thr	Gly	His				
		35				40					45								
Ile	Leu	Ile	Lys	Lys	Pro	Ile	Ser	Lys	Thr	Tyr	Asn	Gly	Arg	Cys	Asn				
	50					55				60									
Val	Lys	Val	Asn	Ile	Lys	Ile	Thr	Thr	Pro	Asn	Ile								
65					70					75									

<210> 4597

<211> 290

<212> PRT

<213> S.epidermidis

<400> 4597

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<210> 4598
<211> 49
<212> PRT
<213> S.epidermidis
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[illegible]

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<210> 4599
<211> 53
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290	295	300
Lys Val Ala Glu Ala Asp Val Trp Leu Arg Glu Asn Pro Leu Glu Phe		
305	310	315
Glu Trp Gly Gly Thr Ser Met Ile Glu Asp Lys Gly Glu Ile Phe Pro		
	325	330
Ser Phe Thr Val Pro Thr His His Pro Gly Phe Lys Gln Leu Glu Glu		
	340	345
Ala His Glu His Ile His Asn Lys Lys Leu Glu His Gly Met Ser Thr		
	355	360
Thr Val Thr Asp Gly Gly Trp Thr Ala His Phe Gly Ile Pro Thr Ile		
	370	375
Leu Tyr Gly Pro Gly Ser Leu Glu Glu Ala His Ser Val Asp Glu Lys		
385	390	395
Ile Lys Ala Lys Glu Leu Ala Gln Tyr Ser Asp Val Leu Tyr Thr Phe		
	405	410
Leu Lys Glu Trp Tyr Glu His Pro Gln Ser Tyr Lys Ser Ser		
	420	425
		430

<210> 4601

<211> 471

<212> PRT

<213> S.epidermidis

<400> 4601

Val Asn Ala Phe Ile Phe Val Ser Leu Arg Arg Lys Leu Met Ala Lys		
1	5	10
Gln Leu Gln Arg Glu Leu Asn Asn Arg His Ile Gln Leu Ile Ala Ile		
	20	25
Gly Gly Val Ile Gly Thr Gly Leu Phe Leu Gly Ser Gly Gln Thr Ile		
	35	40
Ser Leu Thr Gly Pro Ser Leu Phe Thr Tyr Met Leu Ile Gly Ile		
	50	55
Val Leu Phe Ala Phe Met Arg Ala Leu Gly Glu Leu Leu Ser Asn		
65	70	75
Ser Lys Phe Asn Ser Phe Val Asp Ile Ala Asn Glu Tyr Leu Gly Pro		
	85	90
Phe Gly Gly Phe Val Ile Gly Trp Thr Tyr Trp Val Cys Trp Ile Val		
	100	105
Ser Ser Met Ser Asp Leu Thr Ala Met Gly Gln Tyr Phe Ala Tyr Trp		
	115	120
Tyr Pro Gln Val Pro His Trp Leu Thr Val Leu Phe Ile Val Leu Leu		
	130	135
Leu Ile Ser Phe Asn Leu Leu Gly Ala Arg Leu Phe Gly Glu Leu Glu		
145	150	155
Phe Trp Phe Ser Ile Ile Lys Val Val Thr Ile Ile Thr Met Val Ile		
	165	170
Val Gly Leu Val Leu Ile Phe Leu Ser Phe Lys Thr Glu Tyr Gly His		
	180	185
Ala Ser Phe Gly Asn Leu Ile His Gly Gly Met Phe Pro His Gly		
	195	200
Ala Ala Gly Phe Leu Met Ser Phe Gln Ile Ala Val Tyr Ser Phe Ile		
	210	215
Gly Ile Glu Leu Ile Gly Val Thr Ala Gly Glu Thr Lys Asn Pro Glu		
225	230	235
Lys Thr Ile Pro Lys Ala Ile Asn Asn Val Pro Ile Arg Ile Leu Leu		
	245	250
		255

Phe Tyr Ile Gly Gly Leu Leu Val Ile Met Ser Val Ile Pro Trp Phe
 260 265 270
 Lys Val Asp Pro Asp Ser Ser Pro Phe Val Lys Leu Phe Thr Leu Ile
 275 280 285
 Gly Val Pro Phe Ala Ala Gly Ile Val Asn Phe Val Val Leu Thr Ala
 290 295 300
 Ala Ala Ser Ala Thr Asn Ser Gly Ile Tyr Ser Asn Ser Arg Ile Leu
 305 310 315 320
 Phe Gly Leu Ala Lys Gln Gly Leu Gly Pro Lys Val Leu Thr Lys Thr
 325 330 335
 Asn Ser Asn Gly Val Pro Tyr Leu Ser Met Leu Val Ser Ser Ile Thr
 340 345 350
 Leu Leu Ile Ala Ala Leu Leu Asn Phe Ile Phe Pro Asp Ala Ile Lys
 355 360 365
 Leu Phe Ile Tyr Val Thr Thr Leu Ser Thr Val Leu Phe Leu Val Val
 370 375 380
 Trp Gly Met Ile Ile Val Ser Tyr Ile Ala Tyr Val Lys Lys Asn Pro
 385 390 395 400
 Glu Gln His Gln Ser Ser Ala Phe Lys Leu Trp Gly Gly Lys Ile Ile
 405 410 415
 Ala Tyr Ile Val Leu Ser Phe Phe Ile Phe Ile Phe Ile Leu Leu Phe
 420 425 430
 Phe Ser Lys Asp Thr Arg Val Ala Ile Phe Ile Ser Pro Leu Trp Phe
 435 440 445
 Ile Phe Leu Phe Phe Tyr Tyr Lys Lys Tyr Lys Asn Asn Ala Glu Ser
 450 455 460
 Leu Ala Asp Arg Gln Arg His
 465 470

<210> 4602

<211> 661

<212> PRT

<213> S.epidermidis

<400> 4602

Met Tyr Ala Phe Thr Ile Ile Val Arg Lys Arg Ser Val His Thr Met
 1 5 10 15
 Lys Ile Leu Ala Ile Thr Ser Cys Pro Asn Gly Ile Ala His Thr Tyr
 20 25 30
 Met Ala Gln Glu Lys Leu Glu Gln Ala Ala Lys Asp Met Gly Val Asp
 35 40 45
 Ile Lys Val Glu Thr Gln Gly Gly Val Gly Ala Glu Asn Val Leu Thr
 50 55 60
 Ser Lys Glu Ile Lys Glu Ala Asp Gly Ile Ile Ile Ala Ala Asp Arg
 65 70 75 80
 Gln Val Asp Leu Ser Arg Phe Asn Gly Lys Pro Leu Ile Asn Glu Ser
 85 90 95
 Val Arg Glu Gly Ile His Arg Pro Lys Glu Leu Ile Gln Arg Val Ile
 100 105 110
 Asp Gln Asp Ala Gln Ile Tyr His Asp Gln Asn Ile Ser Ser Asn Ile
 115 120 125
 Ser Arg Asp Gln Glu Glu Pro His Lys Ser Asn Ile Gln Met Val Tyr
 130 135 140
 Gln His Leu Met Asn Gly Val Ser Phe Met Val Pro Phe Ile Val Val
 145 150 155 160
 Gly Gly Leu Leu Ile Ala Ile Ala Leu Thr Leu Gly Gly His Thr Thr

					165					170					175
Pro	Lys	Gly	Leu	Val	Ile	Thr	Glu	Asp	Ser	Phe	Trp	Lys	Ser	Ile	Glu
			180					185					190		
Asn	Ile	Gly	Ser	Leu	Ser	Phe	Lys	Phe	Met	Val	Pro	Ile	Leu	Ala	Gly
		195					200					205			
Tyr	Ile	Ala	Val	Ser	Ile	Ala	Asp	Lys	Pro	Gly	Leu	Val	Pro	Gly	Met
	210					215					220				
Ile	Gly	Gly	Ala	Ile	Ala	Ala	Asp	Gly	Ser	Leu	Tyr	Gly	Ser	Glu	Ala
225					230					235					240
Gly	Ala	Gly	Phe	Val	Gly	Gly	Ile	Val	Ala	Gly	Phe	Leu	Ala	Gly	Tyr
			245						250					255	
Ile	Ala	Lys	Trp	Ile	Lys	Gln	Ile	Lys	Val	Pro	Lys	Ala	Met	Ala	Pro
			260					265					270		
Ile	Met	Pro	Ile	Ile	Ile	Ile	Pro	Ile	Leu	Ser	Ser	Leu	Ile	Val	Gly
		275					280					285			
Leu	Ile	Phe	Ile	Phe	Val	Ile	Gly	Thr	Pro	Ile	Ser	Asn	Ile	Phe	Gly
	290					295					300				
Ala	Leu	Thr	Ser	Trp	Leu	Lys	Gly	Met	Gln	Gly	Ala	Asn	Ile	Ile	Ile
305					310					315					320
Leu	Ala	Leu	Ile	Ile	Gly	Ala	Met	Ile	Ala	Phe	Asp	Met	Gly	Gly	Pro
				325					330					335	
Val	Asn	Lys	Val	Ala	Phe	Leu	Phe	Gly	Ser	Ala	Leu	Ile	Thr	Glu	Gly
			340					345					350		
Asn	Tyr	Thr	Val	Met	Gly	Met	Val	Ala	Val	Ala	Val	Cys	Thr	Pro	Pro
		355					360					365			
Ile	Gly	Leu	Gly	Leu	Ala	Thr	Phe	Val	Arg	Lys	His	Gln	Phe	Asn	Lys
	370					375					380				
Ala	Glu	Gln	Glu	Met	Gly	Lys	Ala	Ser	Phe	Thr	Met	Gly	Leu	Phe	Gly
385					390					395					400
Ile	Thr	Glu	Gly	Ala	Ile	Pro	Phe	Ala	Ala	Gln	Asp	Pro	Leu	Arg	Ile
				405					410					415	
Ile	Pro	Ala	Asn	Met	Ile	Gly	Ala	Met	Ile	Ala	Ser	Val	Ile	Ala	Ala
			420					425					430		
Val	Gly	Gly	Val	Gly	Asp	Lys	Val	Ala	His	Gly	Gly	Pro	Ile	Val	Ala
		435					440					445			
Val	Leu	Gly	Gly	Ile	Ser	Asn	Ile	Leu	Trp	Phe	Phe	Ile	Ala	Val	Val
	450					455				460					
Val	Gly	Ser	Leu	Val	Thr	Met	Phe	Thr	Val	Leu	Leu	Phe	Lys	Arg	His
465					470					475					480
Thr	Pro	Ala	Ile	Ala	Lys	Ser	Asn	Asn	Gly	Asn	Asp	Thr	Ser	Val	Gly
				485					490					495	
Thr	Glu	Asn	Val	Phe	Ser	Asp	Asp	Gln	Ser	Ile	Asn	His	Ser	Lys	Gln
			500					505					510		
Leu	Ser	His	His	Met	Val	Phe	Asp	Lys	Ser	Leu	Ile	Glu	Ile	Thr	Lys
		515													

610		615		620
His Leu Lys Leu Leu Gln Arg Leu Ser Arg Thr Leu Met Lys Asp Asn				
625		630		635
Thr Arg Asp Glu Leu Ile His Ala Gln Ser Arg Asp Glu Ile Phe Asn				
	645		650	655
Ile Leu Lys Glu Ile				
660				

<210> 4603
 <211> 41
 <212> PRT
 <213> S.epidermidis

<400> 4603
 Ile Lys Lys Pro Val Asn Glu Phe Ile Lys Thr His Leu Leu Ala Ile
 1 5 10 15
 Leu Leu Gly Ile Met Ser Gln Leu Pro Val Ser Ile Ile Ile Leu Phe
 20 25 30
 Tyr Leu Ile Tyr Asn Gln Leu Asn Arg
 35 40

<210> 4604
 <211> 304
 <212> PRT
 <213> S.epidermidis

<400> 4604
 Leu Leu Gln Phe Ile Phe Ala Ile Ser Ser Tyr Thr Gly Leu Lys Lys
 1 5 10 15
 Gly Ile Gln Lys Leu Ser Asp Val Asn Val Trp Leu Ser Phe Leu Leu
 20 25 30
 Leu Ala Phe Val Phe Ile Val Gly Pro Thr Val Phe Ile Met Glu Thr
 35 40 45
 Thr Val Thr Gly Phe Gly Asn Met Ile Lys Asp Phe Phe His Met Ala
 50 55 60
 Thr Trp Met Glu Pro Phe Gly Gly Ile Lys Gly Arg Lys Glu Thr Asn
 65 70 75 80
 Phe Pro Gln Asp Trp Thr Ile Phe Tyr Trp Ser Trp Trp Leu Val Tyr
 85 90 95
 Ala Pro Phe Ile Gly Leu Phe Ile Ala Arg Ile Ser Lys Gly Arg Thr
 100 105 110
 Leu Lys Glu Val Val Leu Gly Thr Ile Cys Tyr Gly Thr Leu Gly Cys
 115 120 125
 Val Leu Phe Phe Gly Ile Phe Gly Asn Tyr Ala Val Tyr Leu Gln Ile
 130 135 140
 Thr Glu Gln Phe Asn Val Ile Ser Tyr Leu Asn Asn Tyr Gly Thr Glu
 145 150 155 160
 Ala Thr Ile Ile Glu Ile Met His Gln Leu Pro Phe Ser Thr Ile Thr
 165 170 175
 Ile Ile Leu Phe Leu Ile Ser Ala Phe Leu Phe Leu Ala Thr Thr Phe
 180 185 190
 Asp Ser Gly Ser Tyr Ile Leu Ala Ala Ala Ser Gln Lys Lys Val Ile
 195 200 205
 Gly Glu Pro Leu Arg Ala Asn Arg Leu Phe Trp Ala Phe Ala Leu Cys
 210 215 220
 Leu Leu Pro Phe Ser Leu Met Leu Val Gly Gly Glu Arg Ala Leu Glu

225					230					235				240	
Val	Leu	Lys	Thr	Ala	Ser	Leu	Leu	Ala	Ser	Val	Pro	Leu	Ile	Val	Ile
				245					250					255	
Phe	Thr	Leu	Met	Met	Ile	Ser	Phe	Leu	Ile	Ile	Leu	Gly	Arg	Asp	Arg
			260					265					270		
Ile	Lys	Leu	Glu	Arg	Arg	Ala	Asp	Lys	His	Lys	Glu	Ile	Glu	Arg	Arg
		275					280					285			
Ser	Leu	Arg	Ile	Val	Gln	Val	Lys	Asp	Lys	Pro	Glu	Asp	Asp	Asn	Leu
	290					295					300				

<210> 4605

<211> 301

<212> PRT

<213> S.epidermidis

<400> 4605

Lys	Glu	Gln	Leu	Thr	Glu	Asp	Asn	Val	Gln	Ser	Ile	Glu	Gly	Phe	Asp
1				5					10					15	
Gly	Leu	Ser	Leu	Ser	Gln	Thr	Leu	Pro	Leu	Ser	Glu	Thr	Ile	Tyr	Asn
			20					25					30		
Lys	Leu	Asn	Gln	Leu	Gly	Ile	Arg	Gln	Ile	Ala	Gln	Arg	Ser	Ala	Gly
		35					40					45			
Phe	Asp	Gly	Tyr	Asn	Leu	Glu	Leu	Ala	Ser	Lys	Tyr	Gly	Leu	Ile	Ile
	50					55					60				
Ser	Asn	Val	Pro	Ser	Tyr	Ser	Pro	Arg	Ser	Ile	Ala	Glu	Phe	Thr	Val
65					70					75					80
Thr	Gln	Ala	Ile	Asn	Ile	Val	Arg	His	Phe	Asn	His	Ile	Gln	Arg	Lys
				85					90					95	
Met	Arg	Leu	His	Asp	Phe	Arg	Trp	Glu	Ala	Ser	Ile	Leu	Ser	Gln	Ser
			100					105					110		
Ile	Lys	Asp	Leu	Lys	Val	Ala	Val	Ile	Gly	Thr	Gly	His	Ile	Gly	Gly
		115					120					125			
Ile	Val	Ala	Gln	Ile	Phe	Ser	Glu	Gly	Tyr	Leu	Cys	Asp	Val	Val	Ala
	130					135					140				
Tyr	Asp	Pro	Phe	Pro	Ser	Glu	His	Val	Lys	Pro	Tyr	Val	Thr	Tyr	Lys
145					150					155					160
Gln	Ser	Ile	Asn	Glu	Ala	Ile	Lys	Glu	Ala	Asp	Ile	Val	Thr	Ile	His
			165					170						175	
Met	Pro	Ser	Thr	Gln	Tyr	Asn	Asn	Tyr	Leu	Phe	Asn	Glu	Asn	Met	Phe
			180					185					190		
Gln	Met	Phe	Lys	Lys	Gly	Ala	Val	Phe	Val	Asn	Cys	Ala	Arg	Gly	Ser
		195					200					205			
Leu	Val	Asp	Thr	Lys	Ala	Leu	Leu	Ser	Ala	Ile	Glu	Gln	Gly	Gln	Ile
	210					215					220				
Lys	Gly	Ala	Ala	Leu	Asp	Thr	Tyr	Glu	Tyr	Glu	Ile	Gly	Val	Tyr	Thr
225					230					235					240
Thr	Asp	Arg	Ser	Glu	Gly	Leu	Asn	Asp	Pro	Leu	Leu	Glu	Glu	Glu	Leu
			245					250						255	
Ile	Thr	Arg	Glu	Asp	Ile	Ile	Val	Thr	Pro	His	Ile	Ala	Phe	Tyr	Thr
			260					265					270		
Glu	Glu	Ala	Ile	Lys	His	Leu	Ile	Phe	Asp	Ala	Leu	Asp	Ala	Thr	Met
		275					280					285			
Glu	Val	Leu	Asn	Thr	Gly	Thr	Thr	Glu	Leu	Arg	Val	Asn			
	290					295					300				

<210> 4606

<211> 156
 <212> PRT
 <213> S.epidermidis

<400> 4606

Tyr Ile Lys Leu Ser Val Ile Gln Lys Gln Gly Val Phe Ile Met Ala
 1 5 10 15
 Asn Ser Ile Tyr Ser Thr Thr Met Ile Ser Asn Gly Gly Arg Asp Gly
 20 25 30
 Arg Val Phe Ser Pro Asp Asn Thr Phe Val Gln Asn Leu Ala Thr Pro
 35 40 45
 Lys Glu Met Gly Gly Gln Gly Gly Asn Asp Thr Asn Pro Glu Gln Leu
 50 55 60
 Phe Ala Ala Gly Tyr Ser Ala Cys Phe Asn Ser Ala Leu Ser Leu Ile
 65 70 75 80
 Leu Ser Gln Asn Lys Ile Ser Asp Ala Asn Pro Glu Val Glu Ile Thr
 85 90 95
 Ile Glu Leu Leu Lys Asp Asp Thr Asp Asn Gly Phe Lys Leu Gly Ala
 100 105 110
 Asp Ile Lys Val Thr Leu Glu Asn Met Ser Gln Gln Asp Ala Glu Lys
 115 120 125
 Phe Val Glu Gln Ala His Gln Phe Cys Pro Tyr Ser Lys Ala Thr Arg
 130 135 140
 Gly Asn Ile Asp Val Gln Leu Asp Val Thr Ala Gln
 145 150 155

<210> 4607
 <211> 70
 <212> PRT
 <213> S.epidermidis

<400> 4607

Asn Val Lys Leu Leu Ile Thr Glu Gly Gly Leu Phe Met Phe Thr Ile
 1 5 10 15
 Ser Ile Ile Ala Met Ile Ile Gly Val Val Leu Ile Val Leu Ser Gln
 20 25 30
 Ile Ile Tyr His Ser Lys Pro Ile Asp Ala Lys Glu Lys Met Phe Ile
 35 40 45
 Pro Gly Val Cys Leu Phe Leu Val Gly Leu Leu Ser Leu Ile Gly His
 50 55 60
 Phe Val Asn Gly Tyr Val
 65 70

<210> 4608
 <211> 54
 <212> PRT
 <213> S.epidermidis

<400> 4608

Leu Leu Phe Thr Asn Asn Leu Ile Ser Phe Ile Ile Val Leu Tyr Lys
 1 5 10 15
 Glu Glu Asp Lys Met Lys Gln Asn Leu Gln Thr Ala Arg Arg Asn Leu
 20 25 30
 Asn Ser Pro Asn Ile Lys Thr Arg Lys Arg Ala Leu Lys Ile Ile Lys
 35 40 45
 Gln His Gln Arg Ser Lys

225 230 235 240
 Gly Thr Pro Leu Ile Phe Ala Leu Gln Thr Arg Ser Trp Asp Arg Val
 245 250 255
 Gly Met Ile Leu Ile Gly Leu Ile Ala Met Val Ala Leu Val Asp Leu
 260 265 270
 Ile Ser Gly Ala Val Arg Lys Arg Ile Val
 275 280

<210> 4611
 <211> 59
 <212> PRT
 <213> S.epidermidis

<400> 4611
 Leu Phe Ala Thr Phe Ile Tyr Leu Ile Leu Phe Glu Gln Val Lys Tyr
 1 5 10 15
 Thr Phe Thr Cys Val Gln Phe Ile Lys Ser Ile His Lys Ile Leu Phe
 20 25 30
 Leu Ile Asn Ser Met Ala Tyr Tyr Thr Phe Leu Tyr Phe Ile Ile His
 35 40 45
 Ile Phe Asn Thr Asn Leu Val Ile Lys Thr Phe
 50 55

<210> 4612
 <211> 482
 <212> PRT
 <213> S.epidermidis

<400> 4612
 Lys Ala Tyr Thr Phe Ser Ile Pro Pro Ser Lys Gly Glu Met Asn Met
 1 5 10 15
 Asn Asp Thr Gly Asp Lys Arg Leu Ser Arg Thr Ser Leu Ile Gly Leu
 20 25 30
 Val Ile Gly Ser Met Ile Gly Gly Gly Ala Phe Asn Ile Gln Ser Asp
 35 40 45
 Met Gly Gly His Ala Gly Gly Leu Ala Ile Ile Ile Gly Trp Leu Ile
 50 55 60
 Thr Ala Ile Gly Met Ile Ser Leu Ala Leu Val Phe Gln Asn Leu Thr
 65 70 75 80
 Asn Glu Arg Ser Asp Leu Asp Gly Gly Ile Tyr Ser Tyr Ala Gln Ala
 85 90 95
 Gly Phe Gly Asp Phe Ile Gly Phe Ala Ser Ala Trp Gly Tyr Trp Phe
 100 105 110
 Ser Ala Phe Leu Gly Asn Val Ala Tyr Ala Thr Leu Leu Met Ser Ser
 115 120 125
 Ile Gly Asn Phe Phe Pro Ile Phe Lys Gly Gly Asn Thr Phe Pro Ser
 130 135 140
 Ile Ile Val Ala Ser Ile Leu Leu Trp Ser Val His Phe Leu Ile Leu
 145 150 155 160
 Lys Gly Val Glu Thr Ala Ala Leu Ile Asn Ser Ile Val Thr Ile Thr
 165 170 175
 Lys Leu Ile Pro Ile Leu Leu Val Ile Ile Cys Met Ile Val Ala Phe
 180 185 190
 Asn Phe Asn Thr Phe Arg Ile Gly Phe Phe Gly Met Asp Gly Tyr Gly
 195 200 205
 Ser Leu Ser Phe His Phe Ala Asn Thr Met Ser Gln Val Lys Ser Thr

210 215 220
 Met Leu Val Thr Val Trp Val Phe Ile Gly Ile Glu Gly Ala Val Val
 225 230 235 240
 Phe Ser Gly Arg Ala Lys Asn Lys Lys Asp Val Gly Thr Ala Thr Val
 245 250 255
 Ile Gly Leu Ile Ser Val Leu Leu Ile Tyr Phe Leu Leu Thr Val Leu
 260 265 270
 Ala Gln Gly Ile Val Ile Gln Asn His Ile Ser Lys Leu Glu Ala Pro
 275 280 285
 Ser Met Ala Gln Ile Leu Ala Tyr Ile Val Gly Asp Trp Gly Ala Thr
 290 295 300
 Phe Val Asn Ile Gly Leu Ile Ile Ser Val Leu Gly Ala Trp Leu Gly
 305 310 315 320
 Trp Thr Leu Leu Ala Gly Glu Leu Pro Phe Ile Val Ala Lys Asp Gly
 325 330 335
 Leu Phe Pro Lys Trp Phe Ala Lys Glu Asn Lys Asn Gly Ala Pro Met
 340 345 350
 Asn Ala Leu Phe Ile Thr Asn Val Leu Val Gln Ile Phe Leu Ile Ser
 355 360 365
 Met Leu Phe Thr Lys Ser Ala Tyr His Phe Ala Phe Ser Leu Ala Ala
 370 375 380
 Ser Ala Ile Leu Tyr Pro Tyr Met Phe Ser Ala Phe Tyr Gln Val Lys
 385 390 395 400
 Tyr Thr Ile Glu Tyr Lys Leu Thr Ala Thr Pro Lys Gln Trp Ile Ile
 405 410 415
 Gly Ile Leu Ala Ser Ile Tyr Ala Ile Trp Leu Val Tyr Ala Ser Gly
 420 425 430
 Ile Asp Tyr Leu Leu Leu Thr Met Leu Leu Tyr Ile Pro Gly Ile Ile
 435 440 445
 Val Tyr Val Val Val Gln Lys Asn Asn Gln Lys Arg Leu Thr Gln Phe
 450 455 460
 Asp Tyr Ile Phe Phe Gly Leu Ile Val Ile Leu Ala Leu Ile Gly Leu
 465 470 475 480
 Leu Arg

<210> 4613
 <211> 71
 <212> PRT
 <213> S.epidermidis

<400> 4613
 Tyr Leu His Thr Phe Leu Lys Lys Pro Gly Ser Ala Asn Gly Ile Val
 1 5 10 15
 Ser Met Met Gly Gly Ile Gly Gly Phe Phe Pro Pro Leu Val Ile Thr
 20 25 30
 Phe Val Thr Ser Ile Thr Gly Ser Ser His Leu Ala Phe Phe Phe Leu
 35 40 45
 Ala Ile Phe Gly Val Ile Ala Leu Ile Thr Met Ile His Leu Asn Lys
 50 55 60
 Lys Glu Lys Ala Ile Arg Ile
 65 70

<210> 4614
 <211> 45
 <212> PRT

<213> S.epidermidis

<400> 4614

Ala	Pro	Asn	Thr	Met	Asn	Ala	Glu	Gly	Thr	Ser	Lys	Ile	Asn	Thr	Ile
1				5					10					15	
Ile	Val	Leu	Glu	Asn	Leu	Val	Lys	Phe	Phe	Gly	Ile	Thr	Val	Asn	Ala
			20					25					30		
Leu	Asn	Pro	Phe	Phe	Leu	Ile	Gly	Val	Ser	Ile	Asn	Leu			
		35					40					45			

<210> 4615

<211> 794

<212> PRT

<213> S.epidermidis

<400> 4615

Met	Ala	Asn	Thr	Thr	Leu	Thr	Leu	Asp	Ile	Ile	Gly	Met	Thr	Cys	Ala
1				5					10					15	
Ala	Cys	Ser	Asn	Arg	Ile	Glu	Lys	Lys	Leu	Asn	Arg	Met	Asn	His	Val
			20					25					30		
Gln	Ala	Lys	Val	Asn	Leu	Thr	Thr	Glu	Lys	Ala	Thr	Ile	Asp	Tyr	Glu
		35					40					45			
Ser	Asp	Asp	Tyr	His	Leu	Glu	Asp	Phe	Val	Glu	Gln	Ile	Gln	Ser	Leu
	50					55					60				
Gly	Tyr	Asp	Val	Ala	Val	Glu	Gln	Val	Glu	Leu	Asn	Ile	Asn	Gly	Met
65					70				75					80	
Thr	Cys	Ala	Ala	Cys	Ser	Asn	Arg	Ile	Glu	Lys	Val	Leu	Asn	Gln	Thr
				85				90						95	
Gln	Gly	Val	Gln	Gln	Ala	Thr	Val	Asn	Leu	Thr	Thr	Glu	Gln	Ala	Leu
			100					105					110		
Ile	Lys	Tyr	Tyr	Pro	Ser	Ala	Thr	Asn	Thr	Glu	Ala	Leu	Ile	Lys	Arg
		115					120					125			
Ile	Gln	Asn	Ile	Gly	Tyr	Asp	Ala	Glu	Thr	Lys	Thr	Ser	Ser	Lys	Ala
		130				135					140				
Gln	Ser	Asn	Arg	Lys	Lys	Gln	Glu	Leu	Lys	His	Lys	Arg	Asn	Lys	Leu
145					150					155					160
Ile	Ile	Ser	Ala	Ile	Leu	Ser	Leu	Pro	Leu	Leu	Leu	Val	Met	Val	Val
				165				170						175	
His	Ile	Ser	Pro	Ile	Ser	Ile	Pro	Ser	Ile	Leu	Val	Asn	Pro	Trp	Val
			180					185					190		
Gln	Leu	Ile	Leu	Ser	Thr	Pro	Val	Gln	Phe	Ile	Ile	Gly	Trp	Gln	Phe
		195					200					205			
Tyr	Val	Gly	Ala	Tyr	Lys	Asn	Leu	Arg	Asn	Gly	Ser	Ala	Asn	Met	Asp
	210					215					220				
Val	Leu	Val	Ala	Val	Gly	Thr	Ser	Ala	Ala	Tyr	Phe	Tyr	Ser	Ile	Tyr
225					230					235					240
Glu	Met	Met	Met	Trp	Leu	Thr	His	Gln	Thr	His	His	Pro	His	Leu	Tyr
				245				250						255	
Phe	Glu	Thr	Ser	Ala	Ile	Leu	Ile	Thr	Leu	Ile	Leu	Leu	Gly	Lys	Tyr
			260					265					270		
Leu	Glu	Ala	Arg	Ala	Lys	Ser	Gln	Thr	Thr	Asn	Ala	Leu	Ser	Glu	Leu
		275					280					285			
Leu	Asn	Leu	Gln	Ala	Lys	Glu	Ala	Arg	Val	Ile	Lys	Glu	Asn	Lys	Glu
	290					295					300				
Ile	Met	Leu	Pro	Leu	Asp	Lys	Val	Lys	Val	Gly	Asp	Thr	Leu	Leu	Ile
305					310					315					320

1753

Trp Ile Ala Gly Ala Ala Met Ala Leu Ser Ser Val Ser Val Val Met
770 775 780
Asn Ala Leu Arg Leu Lys Lys Met Lys Leu
785 790

<210> 4616
<211> 54
<212> PRT
<213> S.epidermidis

<400> 4616
Asp Ser Gly Thr Leu Gln Thr Cys Thr Lys Arg Val Asn Gly Gln His
1 5 10 15
Ala Asn Thr Val Asn Pro Asn Asn Met Cys Ser Leu Asn Asp Gln Gly
20 25 30
Thr Phe Asn Ile Lys Ser Ala Phe Gly Glu Asn Met Asn Lys Cys Leu
35 40 45
Asn His Ile Ala Met Val
50

<210> 4617
<211> 41
<212> PRT
<213> S.epidermidis

<400> 4617
Pro Tyr Val Thr Phe Tyr Pro Pro Gln Phe Asn Ala Leu Leu Leu Val
1 5 10 15
Tyr Lys Tyr Val Asn Ile Gln Lys Phe Val Leu Gln Ala Leu Ser Phe
20 25 30
Arg Cys Phe Asp Ile Leu Asn Thr Ile
35 40

<210> 4618
<211> 45
<212> PRT
<213> S.epidermidis

<400> 4618
Arg Ala Tyr Thr Tyr Asp Met Ala Asp Ser Leu Ile Ile Ser Phe Thr
1 5 10 15
Phe Val Tyr Ser Gly Phe Ile Gln Asn Ile Thr Asn Glu Thr Arg Leu
20 25 30
Phe Tyr Ser Leu Ile Gln Glu Val Asp Arg His Leu Phe
35 40 45

<210> 4619
<211> 112
<212> PRT
<213> S.epidermidis

<400> 4619
Cys Ile Arg Phe His Ile Ile Asn Leu Ile Thr Leu Phe Ile Leu Ser
1 5 10 15
Tyr Tyr Ile Ile Asn Asn Leu Ile Pro Phe Thr Ile Leu Ile Ile Asn
20 25 30

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Asn Thr Ser Glu Ala Ile Ser Arg Ile Pro Pro Ile Ile Thr Pro Ile
 35 40 45
 Thr Ser Thr Ala Thr Pro Phe Val Glu Ser Ile Lys Asp Ser Pro Ala
 50 55 60
 Ala Asn Asp Ile Ser Pro Asn Thr Lys His Thr Gln Leu Lys Ile Trp
 65 70 75 80
 Leu Asn Asn Ala Phe Leu Glu Tyr Val Asp Ala Gly Gly Cys Pro Thr
 85 90 95
 Ile His Thr Ile Asn Gly Asn Asn Thr Gly Ala Lys Asn Thr Leu Arg
 100 105 110

<210> 4620

<211> 47

<212> PRT

<213> S.epidermidis

<400> 4620

Gly Tyr Leu Thr Ile Phe Lys Ile Tyr Asn Leu Ile Leu Lys Arg Phe
 1 5 10 15
 Ile Ser Ile Met Ile Tyr Ile His Lys Lys Arg Glu Val Lys Gln Ile
 20 25 30
 Val Thr His Tyr Ser Val Cys Cys Ala Tyr Ser Leu Ala Arg Asn
 35 40 45

<210> 4621

<211> 58

<212> PRT

<213> S.epidermidis

<400> 4621

Thr Lys Leu Thr Arg Cys Leu Met Tyr Lys Asn Tyr Lys Met Thr Lys
 1 5 10 15
 His Thr Leu Leu Met Glu Thr Ser Val Leu Ile Pro Thr Asn Asp Ile
 20 25 30
 Ser Arg His Val Asn Val Ile Ala Glu Thr Ile Pro Glu Thr Glu Phe
 35 40 45
 Asp Lys Phe Arg His Tyr Arg Cys Leu Ile
 50 55

<210> 4622

<211> 58

<212> PRT

<213> S.epidermidis

<400> 4622

Thr Lys Leu Thr Arg Cys Leu Met Tyr Lys Glu Tyr Asn Leu Thr Gln
 1 5 10 15
 His Thr Leu Pro Met Glu Thr Ser Val Leu Ile Pro Thr Asn Asp Ile
 20 25 30
 Ser Arg His Val Asn Asp Ile Val Glu Thr Ile Pro Asp Thr Glu Phe
 35 40 45
 Asp Glu Phe Arg His His Arg Gly Leu Ile
 50 55

<210> 4623

<211> 69

<212> PRT

<213> S.epidermidis

<400> 4623

Thr	Lys	Leu	Thr	Arg	Cys	Leu	Met	Tyr	Lys	Asp	Tyr	Asn	Val	Thr	Gln
1				5					10					15	
Leu	Thr	Leu	Pro	Met	Lys	Thr	Ser	Phe	Phe	Ile	Pro	Ala	Asn	Asp	Ile
			20					25					30		
Ser	Arg	His	Ala	Asn	Asp	Ile	Val	Glu	Thr	Ile	Pro	Glu	Thr	Glu	Phe
		35				40					45				
Asp	Glu	Leu	Arg	His	His	Arg	Gly	Ala	Thr	Ser	Tyr	His	Ser	Lys	Met
	50					55					60				
Ile	Leu	Lys	Glu	Leu											
65															

<210> 4624

<211> 58

<212> PRT

<213> S.epidermidis

<400> 4624

Thr	Lys	Leu	Thr	Arg	Cys	Leu	Met	Tyr	Lys	Asp	Tyr	Asn	Met	Thr	Gln
1				5					10					15	
His	Thr	Leu	Leu	Met	Glu	Thr	Ser	Val	Leu	Ile	Pro	Thr	Asn	Asp	Ile
			20					25					30		
Ser	Arg	His	Val	Asn	Asp	Ile	Ala	Glu	Thr	Ile	Pro	Asp	Thr	Glu	Phe
		35				40						45			
Asp	Glu	Phe	Arg	His	Tyr	Arg	Gly	Leu	Ile						
	50					55									

<210> 4625

<211> 58

<212> PRT

<213> S.epidermidis

<400> 4625

Thr	Lys	Leu	Thr	Arg	Cys	Leu	Met	Tyr	Lys	Asp	Tyr	Asn	Met	Ile	Gln
1				5					10					15	
His	Thr	Leu	Leu	Met	Gly	Thr	Ser	Val	Leu	Ile	Pro	Thr	Asn	Asn	Ile
			20					25					30		
Ser	Arg	His	Val	Asn	Asp	Ile	Val	Glu	Thr	Ile	Pro	Asp	Thr	Glu	Phe
		35				40						45			
Asp	Glu	Phe	Arg	His	Pro	Arg	Gly	Leu	Ile						
	50					55									

<210> 4626

<211> 58

<212> PRT

<213> S.epidermidis

<400> 4626

Thr	Lys	Leu	Thr	Arg	Cys	Leu	Met	Tyr	Lys	Asp	Tyr	Asn	Met	Thr	Gln
1				5					10					15	
His	Thr	Leu	Leu	Met	Glu	Thr	Ser	Val	Leu	Ile	Ser	Thr	Asn	Asp	Ile
			20					25					30		
Ser	Arg	His	Val	Asn	Asp	Ile	Ala	Glu	Thr	Ile	His	Tyr	Thr	Glu	Phe

35 40 45
 Asp Glu Phe Arg His Pro Arg Gly Leu Ile
 50 55

<210> 4627
 <211> 58
 <212> PRT
 <213> S.epidermidis

<400> 4627
 Thr Lys Leu Thr Arg Cys Leu Met Tyr Lys Asp Tyr Asn Met Thr Gln
 1 5 10 15
 His Thr Leu Leu Met Glu Thr Ser Val Leu Ile Ser Thr Asn Asp Ile
 20 25 30
 Ser Arg His Val Asn Asp Ile Ala Glu Thr Ile Pro Asp Thr Glu Phe
 35 40 45
 Asp Glu Phe Arg His Tyr Arg Gly Leu Ile
 50 55

<210> 4628
 <211> 435
 <212> PRT
 <213> S.epidermidis

<400> 4628
 Lys Arg Leu Thr His Arg Arg Cys Ile Thr Met Ser Glu Asn Ile Ile
 1 5 10 15
 Met Pro Lys Leu Gly Met Thr Met Lys Glu Gly Thr Val Glu Glu Trp
 20 25 30
 Phe Lys Ser Glu Gly Asp Thr Val Lys Gln Gly Glu Ser Ile Val Thr
 35 40 45
 Ile Ser Ser Glu Lys Leu Thr Asn Asp Val Glu Ala Pro Ala Ser Gly
 50 55 60
 Thr Leu Leu Glu Ile Lys Val Gln Ala Gly Glu Asp Ala Glu Val Lys
 65 70 75 80
 Ala Val Leu Gly Ile Ile Gly Glu Glu Gly Glu Ala Ile Asp Lys Asp
 85 90 95
 Glu Asp Asp Leu Ala Ser Glu Lys Val Lys Glu Asp Asn Glu His Glu
 100 105 110
 Lys Glu Thr Gln Glu Val Lys Asp Thr Ser Gln Pro Ser Ser Asp Asn
 115 120 125
 Lys Asp Asn Ser Pro Lys Ser Ala Ala Arg Glu Arg Ile Phe Ile Ser
 130 135 140
 Pro Leu Ala Arg Asn Met Ala Glu Asp Lys Gly Leu Asp Ile Asn Lys
 145 150 155 160
 Ile Lys Gly Thr Gly Gly Asn His Arg Ile Thr Lys Leu Asp Ile Gln
 165 170 175
 Arg Val Glu Ala Asn Gly Tyr Asp Tyr Ala Ser Asp Thr Thr Ser Asn
 180 185 190
 Glu Asp Thr Ser His Val Pro Thr Gln Thr Val Asp Thr Ser Ala Ile
 195 200 205
 Gly Glu Gly Leu Asn Pro Met Arg Gln Arg Ile Ala Gln Asn Met Arg
 210 215 220
 Gln Ser Leu Asn Ser Thr Ala Gln Leu Thr Leu His Arg Lys Val Asp
 225 230 235 240
 Ala Asp Arg Leu Leu Asp Phe Lys Asp Arg Leu Ala Thr Glu Leu Lys

106627-666516

<212> PRT

<213> S.epidermidis

<400> 4631

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Lys Trp Ile Thr Pro Ile Leu Phe Ile Asp Ile Val Ile Phe Thr Pro
1           5           10           15
Ile Ile Glu Glu Leu Leu Phe Arg His Leu Ile Ile His Glu Leu Gly
20           25           30
Lys Lys Leu Thr Tyr Gly Leu Met Tyr Ile Val Ser Ile Val Gly Phe
35           40           45
Thr Tyr Phe His Cys Thr Asp Ala Val Ser Pro Phe Glu Ala Gly Pro
50           55           60
Tyr Phe Ile Ala Ala Val Val Phe Val Ile Gly Tyr His Phe Ser His
65           70           75           80
Arg Asn Leu Ala Val Pro Ile Ala Leu His Met Ile Thr Asn Leu Ile
85           90           95
Ala Phe

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<210> 4632

<211> 74

<212> PRT

<213> S.epidermidis

<400> 4632

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Asn Phe Ser Thr Pro Phe Thr Tyr Ile Tyr Val Tyr Val Arg Asn Asn
1           5           10           15
Tyr Val Ser Val Ser Gln Thr Thr Thr Arg Glu Asp Tyr Ile Met Ser
20           25           30
Gly Ile Val Glu Ser Leu His Asn Ala Val Asn Ala Gly Leu His Val
35           40           45
Lys Gln Asp Trp Val Asp Met Gly Phe Gly Ile Ala Asp Thr Val Ala
50           55           60
Lys Ile Val Asp Gln Val Leu Lys Phe Val
65           70

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<210> 4633

<211> 63

<212> PRT

<213> S.epidermidis

<400> 4633

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Trp Ser Pro Thr Gly Ile Phe Asn Lys Met Pro Lys Met Thr Ile Lys
1           5           10           15
Val Met Ile Val Lys Asn Ile Lys Ile Ile Phe Gln Leu Ala Ile Asp
20           25           30
Lys Ala Arg Pro Pro Asn Ser Gly Ala Met Met Val Ile Ile Pro Phe
35           40           45
Met Thr Ile Arg Glu Val Lys Asn Phe Ala Asn Leu Phe Pro Ser
50           55           60

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<210> 4634

<211> 46

<212> PRT

<213> S.epidermidis

<400> 4634

Tyr Ile Thr Thr Phe Met Leu Asn Cys Ala Phe Asn Phe Tyr Phe Arg
 1 5 10 15
 Glu Lys Arg Cys Leu Glu Gly Ile His Ile Tyr Arg Tyr Ile Gly Gly
 20 25 30
 Ile Phe Asn Gly Phe Thr Leu Cys Tyr Lys Phe Lys Thr Ser
 35 40 45

<210> 4635

<211> 43

<212> PRT

<213> S.epidermidis

<400> 4635

Asn Phe Thr Thr Phe Phe Trp Lys Ile Tyr Leu Leu Leu Ile Ala Lys
 1 5 10 15
 Tyr His His Ser Leu Met Tyr Thr Ser Phe Leu Phe Asn Glu Tyr Ser
 20 25 30
 Asn Ile Asp Thr Leu Lys Lys Phe Lys Lys Pro
 35 40

<210> 4636

<211> 806

<212> PRT

<213> S.epidermidis

<400> 4636

Thr His Gln Thr Ile Thr Gly Val Ile Arg Met Ala Lys Gly Val Asn
 1 5 10 15
 Gln Ile Ile Asn Asn Ile Arg Leu Arg Lys Leu Arg Lys Ile Leu Asn
 20 25 30
 Gln Ile Asn Ala Leu Ser Glu Glu Phe Ser Asn Phe Ser Asp Glu Ala
 35 40 45
 Leu Gln Ala Lys Thr Lys Glu Phe Lys Val Tyr Leu Asn Asp Asn Lys
 50 55 60
 Ala Ser Leu Asn His Ile Leu Pro Gln Ala Tyr Ala Thr Val Arg Glu
 65 70 75 80
 Ala Ser Lys Arg Val Leu Gly Met Tyr Pro Lys Asp Val Gln Ile Leu
 85 90 95
 Gly Ala Ile Ala Met His Gln Gly Asn Ile Ala Glu Met Gln Thr Gly
 100 105 110
 Glu Gly Lys Thr Leu Thr Ala Thr Met Leu Leu Tyr Leu Asn Ala Leu
 115 120 125
 Thr Gly Lys Gly Ala Tyr Leu Ile Thr Thr Asn Asp Tyr Leu Ala Lys
 130 135 140
 Arg Asp Phe Leu Glu Met Lys Pro Leu Tyr Glu Trp Leu Gly Leu Ser
 145 150 155 160
 Val Ser Leu Gly Phe Val Asp Ile Pro Glu Tyr Glu Tyr Ala Glu Asn
 165 170 175
 Glu Lys Tyr Glu Leu Tyr His His Asp Ile Val Tyr Thr Thr Asn Gly
 180 185 190
 Arg Leu Gly Phe Asp Tyr Leu Ile Asp Asn Leu Ala Asp Asp Ile Arg
 195 200 205
 Ala Lys Phe Leu Pro Lys Leu Asn Phe Ala Ile Ile Asp Glu Val Asp
 210 215 220
 Ser Ile Ile Leu Asp Ala Ala Gln Thr Pro Leu Val Ile Ser Gly Ala

225					230					235				240
Pro	Arg	Val	Gln	Ser	Asn	Leu	Phe	His	Ile	Val	Lys	Thr	Phe	Val
				245					250					255
Thr	Leu	Glu	Lys	Asp	Lys	Asp	Phe	Ile	Val	Asn	Phe	Asn	Lys	Lys
			260					265					270	
Val	Trp	Leu	Thr	Asp	Glu	Gly	Ser	Glu	Lys	Ala	Ser	His	Tyr	Phe
		275					280					285		
Val	Asn	Ser	Ile	Tyr	Gln	Gln	Gln	Tyr	Phe	Asp	Leu	Val	Arg	Met
	290					295					300			
His	Leu	Ser	Leu	Arg	Ala	Lys	Tyr	Leu	Phe	Lys	Tyr	Asn	Leu	Asp
305					310					315				320
Phe	Ile	Phe	Asp	Gly	Glu	Ile	Val	Leu	Ile	Asp	Arg	Ile	Thr	Gly
			325						330					335
Met	Leu	Pro	Gly	Thr	Lys	Leu	Gln	Ser	Gly	Leu	His	Gln	Ala	Ile
		340						345					350	
Ala	Leu	Glu	Asn	Val	Glu	Ile	Ser	Gln	Asp	Met	Ser	Val	Met	Ala
	355						360					365		
Ile	Thr	Phe	Gln	Asn	Leu	Phe	Lys	Gln	Phe	Asp	Glu	Phe	Ser	Gly
	370					375					380			
Thr	Gly	Thr	Gly	Lys	Leu	Gly	Glu	Lys	Glu	Phe	Phe	Asp	Leu	Tyr
385					390					395				400
Lys	Val	Val	Ile	Glu	Ile	Pro	Thr	His	Ser	Pro	Ile	Glu	Arg	Asp
			405						410					415
Arg	Pro	Asp	Arg	Val	Phe	Ala	Asn	Gly	Asp	Lys	Lys	Asn	Asp	Ala
		420						425					430	
Leu	Lys	Thr	Val	Ile	Gly	Ile	His	Glu	Thr	Gln	Gln	Pro	Val	Leu
	435					440						445		
Ile	Thr	Arg	Thr	Ala	Glu	Ala	Ala	Glu	Tyr	Phe	Ser	Ala	Glu	Leu
	450				455						460			
Lys	Arg	Asp	Ile	Pro	Asn	Asn	Leu	Leu	Ile	Ala	Gln	Asn	Val	Ala
465					470					475				480
Glu	Ala	Gln	Met	Ile	Ala	Glu	Ala	Gly	Gln	Leu	Ser	Ala	Val	Thr
			485					490					495	
Ala	Thr	Ser	Met	Ala	Gly	Arg	Gly	Thr	Asp	Ile	Lys	Leu	Ser	Lys
		500						505					510	
Val	His	Asp	Ile	Gly	Gly	Leu	Ala	Val	Ile	Ile	Asn	Glu	His	Met
	515					520						525		
Asn	Ser	Arg	Val	Asp	Arg	Gln	Leu	Arg	Gly	Arg	Ser	Gly	Arg	Gln
	530				535						540			
Asp	Pro	Gly	Tyr	Ser	Gln	Ile	Phe	Val	Ser	Leu	Asp	Asp	Asp	Leu
545					550					555				560
Lys	Arg	Trp	Ser	Asn	Ser	Asn	Leu	Ala	Glu	Asn	Lys	Asn	Leu	Gln
			565						570					575
Met	Asp	Ala	Ser	Lys	Leu	Glu	Ser	Ser	Ala	Leu	Phe	Lys	Lys	Arg
		580						585					590	
Lys	Ser	Ile	Val	Asn	Lys	Ala	Gln	Arg	Val	Ser	Glu	Glu	Thr	Ala
	595						600					605		
Lys	Asn	Arg	Glu	Met	Ala	Asn	Glu	Phe	Glu	Lys	Ser	Ile	Ser	Val
	610					615					620			
Arg	Asp	Lys	Ile	Tyr	Ala	Glu	Arg	Asn	His	Ile	Leu	Glu	Ala	Ser
625					630					635				640
Phe	Asp	Asp	Phe	Asn	Phe	Glu	Gln	Leu	Ala	Arg	Asp	Val	Phe	Thr
			645					650					655	
Asp	Val	Lys	Asn	Leu	Asp	Leu	Ser	Ser	Glu	Arg	Ala	Leu	Val	Asn
			660					665				670		
Ile	Tyr	Glu	Asn	Leu	Ser	Phe	Val	Phe	Asp	Glu	Asp	Val	Ser	Asn

Trp Val Gln Leu Ile Ser Asn Val Pro Lys Glu Met Val Tyr Pro Leu
 260 265 270
 Met Asn Ser Leu Thr His Asp Met Val Pro His Arg Lys Arg Val Val
 275 280 285
 Ser Asn Leu Ser Val Gly Asn Ile Thr Phe Glu Asp Ser Val Lys Arg
 290 295 300
 Ala Leu Arg Glu Glu Gln Lys Thr Ser Lys Lys Lys Ser Asp Ser Lys
 305 310 315 320
 Asn Ser Gln Ser Phe Gly Leu Met His Gln Glu Ile Lys Asp Val Arg
 325 330 335
 Ala Ile Thr Arg Phe Lys Ile Pro Glu Gly Tyr Ser Ile Lys Asp Val
 340 345 350
 Thr Lys Glu Tyr Ala Lys Phe Ile Asn Asn Ile Thr Leu His Ile Val
 355 360 365
 Lys Gly Thr Ile Asn Glu Arg Phe Asn Met Asn Leu Pro Phe Ile
 370 375 380
 Asn Lys Phe Ile Leu Lys Met Glu Arg Asp Glu Ala Asp Ser Thr Glu
 385 390 395 400
 Asp Met Val Val Tyr Asn Ile Val Gly Gly Asp Leu Ala His Ser Asn
 405 410 415
 Asp Gly Gly Asn Ala Arg Phe Glu Phe Arg Arg Ile Arg Asn Thr Asn
 420 425 430
 Glu Gly Ile Ile Ala Leu Gln Glu Tyr Glu Pro Thr Leu Pro Trp Val
 435 440 445
 Val Tyr Lys Leu Thr Gln Ala Lys Ala His Lys Thr Val Met Asn Ile
 450 455 460
 Phe Lys Asn Lys Met Ala Arg Leu Ala Gln Gln Lys Asn Val Lys Asp
 465 470 475 480
 Glu Thr Tyr Met Ser Asn Arg Val Thr Ile Gly Val Thr Val Ala Ser
 485 490 495
 Ala Phe Val Ile Gly Ser Ala Val Gly Phe Gln Leu Phe Lys Lys His
 500 505 510
 Gln Ile Lys Lys Asn Thr Met Ser Asn Ala Glu Leu
 515 520

<210> 4638

<211> 389

<212> PRT

<213> S.epidermidis

<400> 4638

Lys Met Lys Thr Val Ser Lys Tyr Phe Val Tyr Met Met Ile Leu Val
 1 5 10 15
 Thr Phe Phe Ile Val Val Ser Gly Cys Ser Ile Asn Gln Ser Phe Ser
 20 25 30
 Asp Lys Gln Asn Thr Asn Lys Thr Ile Arg Val Val Ala Val Gly Asp
 35 40 45
 Asn Leu Ile His Pro Val Val Tyr Lys Asp Ala Gln Ile Thr Gly Asn
 50 55 60
 Ser Phe Asp Phe Lys Pro Met Tyr Gln Pro Val Lys Lys Asp Ile Gln
 65 70 75 80
 Asn Ala Asp Ile Ser Phe Val Asn Gln Glu Ser Pro Leu Gly Gly Asp
 85 90 95
 Asp Arg Pro Tyr Ser Gly Phe Lys Asn Phe Asn Thr Pro Ser Ser Ile
 100 105 110
 Ala Gln Asp Leu Val Asp Thr Gly Phe Asn Phe Val Asn Gly Ala Asn

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      115              120              125
Asn His Ala Leu Asp Gln Gly Glu Gln Gly Val Arg Asn His Ile His
  130              135              140
Thr Trp Asn Lys Phe Lys Tyr Gln Val Leu Phe Thr Gly Val Tyr Glu
  145              150              155              160
Ser Glu Gln Ala His Arg Gln Ile Pro Ile Lys Thr Ile Lys Gly Val
      165              170              175
Lys Val Ala Leu Leu Ser Tyr Thr Phe Gly Thr Asn Asp His Gln Pro
      180              185              190
Thr His Asp Tyr Thr Val Asp Thr Phe Asp Glu Asn Lys Ile Lys Gln
      195              200              205
Asp Val Lys Lys Ala Lys Gln Gln Ser Asp Val Val Leu Val Ser Ala
      210              215              220
His Trp Gly Asn Glu Gly Lys His Gln Pro Asn Ala Thr Gln Lys Lys
      225              230              235              240
Tyr Ala Gln Ile Phe Ala Asp Ala Gly Val Asp Val Val Leu Gly Thr
      245              250              255
His Pro His Val Ile Gln Pro Val Lys Trp Val Asp Gly Arg Glu Gly
      260              265              270
Asn Arg Thr Leu Val Ala Tyr Ser Leu Gly Asn Phe Leu Asn Gly Gln
      275              280              285
Ser Thr Gly Asn Glu Ser Asn Asp Leu Leu Gly Arg Ile Asp Phe Lys
      290              295              300
Ile Ser Lys Lys Asp Lys Gln Phe Gln Val Gln Asp Val Lys Trp Arg
      305              310              315              320
Ser Met Val Asn Tyr Tyr Glu Leu Thr Gln His Gln Asn Gln Phe Leu
      325              330              335
Lys Ser Asn Phe Lys Val Met Met Leu Asp Asp Tyr Asn Asp Lys Asp
      340              345              350
Ala Thr His His Gly Arg Asn Gln Met Asp Ser Ser Ser Met Ser Pro
      355              360              365
Ala His Leu Arg Asp Ile Thr Arg Ser Val Ile Asp Lys Gln Tyr Leu
      370              375              380
Asp Asn Arg Ser Leu
      385

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<210> 4639

<211> 178

<212> PRT

<213> S.epidermidis

<400> 4639

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Met Leu Glu Thr His Arg Leu Lys Leu Val Lys Pro Asn Leu Ser Tyr
1              5              10              15
Thr Asp Glu Leu Tyr Gln Leu His Thr Asn Lys Val Ala Thr Lys Tyr
      20              25              30
Thr Pro Lys Gly Ile His Gln Asn Lys Val Ala Thr Gln Asp Phe Ile
      35              40              45
Lys Gly Trp Met Arg His Trp Asp Glu Tyr Gln Phe Gly Tyr Phe Ile
      50              55              60
Leu Ile Met Arg Asp Asn His Glu Val Val Gly Ile Ala Gly Phe Glu
      65              70              75              80
Tyr Arg Thr Ile His Gln Gln Gln Phe Leu Asn Ala Tyr Tyr Arg Ile
      85              90              95
Phe Pro Ser Tyr Thr Gly Val Gly Leu Ala Phe Glu Ser Met Glu Glu
      100              105              110

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Ile Ala Arg His Leu Lys Lys His Asp Thr Ile Thr Pro Lys Leu Ile
 115 120 125
 Arg Thr Asn Gln Tyr Asn Thr Asn Ser Ile Lys Leu Ala Gln Lys Leu
 130 135 140
 Gly Tyr Asn Tyr Asp Ala Asn Trp Asp Asp Val Ile Asn Lys Gly Asp
 145 150 155 160
 Arg Cys Phe Leu Thr Tyr Lys Arg Trp Ile Ile Thr Lys Ser Met Met
 165 170 175
 Asn Ser

<210> 4640

<211> 241

<212> PRT

<213> S.epidermidis

<400> 4640

Val Asp Arg Thr Ile Asn Asp Arg Ser Gly Tyr Lys Met Asn Tyr Ser
 1 5 10 15
 Pro Lys Gln Gly Val Lys Ser His Gly Leu Pro His Asp Pro Phe Lys
 20 25 30
 Ser Ser Thr Val Pro Arg Pro Ile Gly Trp Ile Ser Thr Val Ser Lys
 35 40 45
 Glu Gly Lys Asp Asn Leu Ala Pro Tyr Ser Gln Tyr Gln Asn Leu Thr
 50 55 60
 Trp Asp Pro Pro Met Val Met Phe Ala Ala Asn Gln Ser Val Leu Gly
 65 70 75 80
 Asp His Glu Arg Lys Asp Thr Val Lys Asn Ala Glu Glu Thr Gly Trp
 85 90 95
 Phe Val Trp Asn Met Ala Thr Tyr Asp Leu Arg Glu Ala Val Asn Leu
 100 105 110
 Ser Ser Lys Ala Leu Pro Pro Glu Asp Asp Glu Phe Asp Phe Ala Gly
 115 120 125
 Val Thr Lys Glu Ser Cys Ile Glu Ala Pro Gly Ser Arg Val Lys Glu
 130 135 140
 Ser Pro Val His Phe Glu Cys Glu Tyr Val Gln Thr Val Arg Ile Pro
 145 150 155 160
 Thr Gly Asp Pro Val Ser Thr Val Asp Val Val Ile Gly Arg Val Ala
 165 170 175
 Gln Val His Ile Asp Asp Lys Val Ile Met Asp Asn Gly Lys Leu Asp
 180 185 190
 Ile Lys Ser Ile Arg Pro Ile Ala Arg Leu Gly Tyr Tyr Asp Tyr Thr
 195 200 205
 Val Val Asp Glu Ile Phe Glu Met Lys Ala Pro Ala Ala Ser Lys Glu
 210 215 220
 Glu Leu Ala Gly Leu Glu Gly Arg Asn Phe Asp Asn Thr Asn Asn Glu
 225 230 235 240
 Ser

<210> 4641

<211> 60

<212> PRT

<213> S.epidermidis

<400> 4641

Asn Thr Arg Thr His Ile Ile Asn Ala Trp Asp Thr Leu Asn Val Ser
 1 5 10 15
 Gly Ile Phe Ile Tyr Gly Asn Arg Cys Ile Asn Arg Lys Tyr Asn Glu
 20 25 30
 Leu Tyr Gln Ile Phe Lys Leu Ser Tyr Thr Ser Glu Glu His Lys Val
 35 40 45
 Leu Phe Asn Leu Cys Ser Thr Ser Phe Ile Tyr Thr
 50 55 60

<210> 4642

<211> 676

<212> PRT

<213> S.epidermidis

<400> 4642

Met Lys Arg Thr Asp Lys Ile Gly Val Tyr Leu Lys Leu Ser Cys Ser
 1 5 10 15
 Ala Leu Leu Leu Ser Gly Ser Leu Val Gly Tyr Gly Phe Thr Lys Asp
 20 25 30
 Ala Phe Ala Asp Ser Glu Ser Thr Ser Ser Asn Val Glu Asn Thr Ser
 35 40 45
 Asn Ser Asn Ser Ile Ala Asp Lys Ile Gln Gln Ala Lys Asp Asp Ile
 50 55 60
 Lys Asp Leu Lys Glu Leu Ser Asp Ala Asp Ile Lys Ser Phe Glu Glu
 65 70 75 80
 Arg Leu Asp Lys Val Asp Asn Gln Ser Ser Ile Asp Arg Ile Ile Asn
 85 90 95
 Asp Ala Lys Asp Lys Asn Asn His Leu Lys Ser Thr Asp Ser Ser Ala
 100 105 110
 Thr Ser Ser Lys Thr Glu Asp Asp Thr Ser Glu Lys Asp Asn Asp
 115 120 125
 Asp Met Thr Lys Asp Leu Asp Lys Ile Leu Ser Asp Leu Asp Ser Ile
 130 135 140
 Ala Lys Asn Val Asp Asn Arg Gln Gln Gly Glu Asn Ser Ala Ser Lys
 145 150 155 160
 Pro Ser Asp Ser Thr Thr Asp Glu Lys Asp Asp Ser Asn Asn Lys Val
 165 170 175
 His Asp Thr Asn Ala Ser Thr Arg Asn Ala Thr Thr Asp Asp Ser Glu
 180 185 190
 Glu Ser Val Ile Asp Lys Leu Asp Lys Ile Gln Gln Asp Phe Lys Ser
 195 200 205
 Asp Ser Asn Asn Lys Leu Ser Glu Gln Ser Asp Gln Gln Ala Ser Pro
 210 215 220
 Ser Asn Lys Asn Glu Asn Asn Lys Glu Glu Ser Ser Thr Thr Thr Asn
 225 230 235 240
 Gln Ser Asp Ser Asp Ser Lys Asp Asp Lys Ser Asn Asp Gly Arg Arg
 245 250 255
 Ser Thr Leu Glu Arg Ile Ala Ser Asp Thr Asp Gln Ile Arg Asp Ser
 260 265 270
 Lys Asp Gln His Val Thr Asp Glu Lys Gln Asp Ile Gln Ala Ile Thr
 275 280 285
 Arg Ser Leu Gln Gly Ser Asp Lys Ile Glu Lys Ala Leu Ala Lys Val
 290 295 300
 Gln Ser Asp Asn Gln Pro Leu Asp Ser Asn Tyr Ile Asn Asn Lys Leu
 305 310 315 320
 Met Asn Leu Arg Ser Leu Asp Thr Lys Val Glu Asp Asn Asn Thr Leu

325 330 335
 Ser Asp Asp Lys Lys Gln Ala Leu Lys Gln Glu Ile Asp Lys Thr Lys
 340 345 350
 Gln Ser Ile Asp Arg Gln Arg Asn Ile Ile Ile Asp Gln Leu Asn Gly
 355 360 365
 Ala Ser Asn Lys Lys Gln Ala Thr Glu Asp Ile Leu Asn Ser Val Phe
 370 375 380
 Ser Lys Asn Glu Val Glu Asp Ile Met Lys Arg Ile Lys Thr Asn Gly
 385 390 395 400
 Arg Ser Asn Glu Asp Ile Ala Asn Gln Ile Ala Lys Gln Ile Asp Gly
 405 410 415
 Leu Ala Leu Thr Ser Ser Asp Asp Ile Leu Lys Ser Met Leu Asp Gln
 420 425 430
 Ser Lys Asp Lys Glu Ser Leu Ile Lys Gln Leu Leu Thr Arg Leu
 435 440 445
 Gly Asn Asp Glu Ala Asp Arg Ile Ala Lys Lys Leu Leu Ser Gln Asn
 450 455 460
 Leu Ser Asn Ser Gln Ile Val Glu Gln Leu Lys Arg His Phe Asn Ser
 465 470 475 480
 Gln Gly Thr Ala Thr Ala Asp Asp Ile Leu Asn Gly Val Ile Asn Asp
 485 490 495
 Ala Lys Asp Lys Arg Gln Ala Ile Glu Thr Ile Leu Gln Thr Arg Ile
 500 505 510
 Asn Lys Asp Lys Ala Lys Ile Ile Ala Asp Val Ile Ala Arg Val Gln
 515 520 525
 Lys Asp Lys Ser Asp Ile Met Asp Leu Ile His Ser Ala Ile Glu Gly
 530 535 540
 Lys Ala Asn Asp Leu Leu Asp Ile Glu Lys Arg Ala Lys Gln Ala Lys
 545 550 555 560
 Lys Asp Leu Glu Tyr Ile Leu Asp Pro Ile Lys Asn Arg Pro Ser Leu
 565 570 575
 Leu Asp Arg Ile Asn Lys Gly Val Gly Asp Ser Asn Ser Ile Phe Asp
 580 585 590
 Arg Pro Ser Leu Leu Asp Lys Leu His Ser Arg Gly Ser Ile Leu Asp
 595 600 605
 Lys Leu Asp His Ser Ala Pro Glu Asn Gly Leu Ser Leu Asp Asn Lys
 610 615 620
 Gly Gly Leu Leu Ser Asp Leu Phe Asp Asp Asp Gly Asn Ile Ser Leu
 625 630 635 640
 Pro Ala Thr Gly Glu Val Ile Lys Gln His Trp Ile Pro Val Ala Val
 645 650 655
 Val Leu Met Ser Leu Gly Gly Ala Leu Ile Phe Met Ala Arg Arg Lys
 660 665 670
 Lys His Gln Asn
 675

<210> 4643

<211> 201

<212> PRT

<213> S.epidermidis

<400> 4643

Asn Gly Gly Thr Arg Met Ile Gln Arg Lys Gly Glu Leu Ile Leu Ser
 1 5 10 15
 Trp Ile Gly Asn Gly Leu His Leu Leu Tyr Val Phe Leu Val Gly Ile
 20 25 30

Phe Phe Ile Met Thr Gln Thr Ser Glu Phe Lys Asn Gly Met Ile Gln
 35 40 45
 Gly Phe Ile Glu Glu Asn Pro Gly Glu Tyr Asp Leu Ala Tyr Gln Thr
 50 55 60
 Tyr Asn Leu Met Leu Gly Leu Gly Val Val Phe Ile Ile Ile Leu Leu
 65 70 75 80
 Ile Leu Leu Ile Val Ser Ile Val Ala Ala Ile Leu Ile Gly Lys Asn
 85 90 95
 Ala Lys Val Ser Gly Ile Leu Leu Val Ile Thr Gly Ile Ile Gly Leu
 100 105 110
 Phe Leu Ser Phe Ile Ala Gly Ala Leu Trp Leu Ile Ala Gly Ile Met
 115 120 125
 Leu Leu Val Arg Lys Pro Gln Thr Gln Asn Asp Gln Ile Asn Ser Gln
 130 135 140
 Tyr Ser Asn Asp Ile His Ser His Val Val Pro Glu Glu Lys Lys Arg
 145 150 155 160
 Glu Gln Gln Gln Tyr Asn Met Asn Glu Pro His Ile Gly Gln Ser Ser
 165 170 175
 Thr Ser His His Asp His Ala Leu Asn Asp Gln Asn Lys Arg Glu Asn
 180 185 190
 His Asn His Asp Asn Gln Pro Tyr Lys
 195 200

<210> 4644

<211> 400

<212> PRT

<213> S.epidermidis

<400> 4644

Lys Gly Gly Thr Thr Thr Met Leu Thr Val Gly Ile Ile Pro Ser Pro
 1 5 10 15
 Gly Ile Ala His Gln His Val Lys Lys Ile Ile Pro Asn Val Lys Gln
 20 25 30
 Leu Leu Ser Lys Arg Thr Lys His Ser Gln Trp Asn Phe Asp Ile Lys
 35 40 45
 Val Asp Leu Met Ile Gly Ser Ala Glu Asp Val His Glu Ser Val Glu
 50 55 60
 Lys Ala Ala Gln Ile Lys Glu Glu His Gln Trp Asp Tyr Val Val Cys
 65 70 75 80
 Leu Thr Asp Leu Pro Ser Ile Ser Asp Asn Lys Val Val Val Ser Asp
 85 90 95
 Phe Asn Ser Asp Lys His Val Ala Met Leu Ser Leu Pro Ser Leu Gly
 100 105 110
 Phe Ile Asp Leu Lys Arg Lys Leu Val Lys Thr Met Thr Ser Leu Ile
 115 120 125
 Glu Gln Leu Tyr Tyr Asn Gln Pro Lys Asp Lys Asn Ala Pro His Pro
 130 135 140
 Phe Val Arg Val Lys Ala Val Glu Pro Asp Glu Asp Ala Thr Ser Lys
 145 150 155 160
 Gln Arg Tyr Ile Asn Ile Leu Phe Ile Ile Ser Trp Ile Gln Leu Ile
 165 170 175
 Gly Gly Leu Thr Arg Ala Asn Gln Pro Trp Lys Asn Ile Phe Asn Phe
 180 185 190
 Lys Lys Ile Ile Ser Val Ala Phe Ala Thr Gly Thr Tyr Val Ser Ile
 195 200 205
 Phe Ser Met Pro Trp Glu Leu Ser Val Ile Tyr Ser Pro Leu Arg Leu

210		215		220
Ile Ile Leu Met Val Ile Ala Ile Leu Gly Met Ala Gly Trp Leu Phe				
225		230		235
Tyr Ala His Gln Leu Ile Glu Lys Lys Thr Ala Lys Ser Gln Arg Val				240
		245		250
Tyr Arg Tyr Ile Tyr Asn Ser Thr Thr Leu Val Thr Leu Ser Leu Ile				255
		260		265
Thr Leu Ile Asn Tyr Val Ile Leu Tyr Leu Leu Leu Ile Ile Ser Ile				270
		275		280
Thr Leu Phe Val Pro Val Glu Leu Phe Asn Ser Trp Thr Ser Ala Gln				285
		290		295
Ser Gln Phe Thr Phe Ser Asn Tyr Met Arg Leu Ile Trp Phe Val Ser				300
305		310		315
Ser Leu Gly Leu Leu Ala Gly Ala Met Gly Ser Thr Val Glu Asn Glu				320
		325		330
Glu Lys Ile Arg Arg Ile Thr Tyr Ser Tyr Arg Gln Tyr His Arg Tyr				335
		340		345
Lys Glu Ala Glu Gln Glu Gln Lys Glu Gln Glu Thr Ser Arg Asp Val				350
		355		360
Ser Gln Gln Asn Val Glu Gln Gln Thr Ser Ser Lys Asp Glu Asn Asn				365
		370		375
Glu Gln Tyr Glu Gly Lys Lys Gln Gly His Arg Glu Glu Asp Asp Ala				380
385		390		395
				400

<210> 4645

<211> 46

<212> PRT

<213> S.epidermidis

<400> 4645

Asn Phe Leu Thr Ile Ser Tyr Gly Leu Ser Ala Thr Cys Asn Pro His		
1	5	10
Ser Val Leu Leu Glu Leu Asp Gln Arg Pro Ala Arg Glu Ser Leu Glu		
	20	25
Ser Asn Thr Gly Asp Val His Gly Met Gln Pro Ile Leu Gly		
	35	40
		45

<210> 4646

<211> 330

<212> PRT

<213> S.epidermidis

<400> 4646

Leu Lys Leu Thr Lys Glu Glu His Arg Phe Met Asp Tyr Arg Val Leu		
1	5	10
Leu Tyr Tyr Lys Tyr Val Thr Ile Asp Asp Pro Glu Thr Phe Ala Ala		
	20	25
Glu His Leu Lys Phe Cys Lys Glu His His Leu Lys Gly Arg Ile Leu		
	35	40
Val Ser Thr Glu Gly Ile Asn Gly Thr Leu Ser Gly Thr Lys Glu Asp		
	50	55
Thr Asp Lys Tyr Ile Glu His Met His Ala Asp Ser Arg Phe Ala Asp		
65	70	75
Leu Thr Phe Lys Ile Asp Glu Ala Glu Ser His Ala Phe Lys Lys Met		
	85	90
		95
His Val Arg Pro Arg Arg Glu Ile Val Ala Leu Asp Leu Glu Glu Asp		


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<210> 4647
<211> 321
<212> PRT
<213> S.epidermidis
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<400> 4647															
Glu	Glu	Leu	Thr	Met	Lys	Met	Glu	Lys	Glu	Gln	Ala	His	Trp	Ile	Tyr
1				5					10					15	
Lys	Thr	Met	Asn	Glu	Ile	Arg	Phe	Phe	Glu	Glu	Lys	Val	His	Lys	Ile
			20					25					30		
Phe	Ser	Asp	Gly	Arg	Ile	Pro	Gly	Phe	Val	His	Leu	Tyr	Val	Gly	Glu
		35					40					45			
Glu	Ala	Val	Ala	Thr	Gly	Val	Met	Ser	Gln	Leu	Asn	Asp	Asp	Asp	Tyr
	50					55					60				
Ile	Thr	Ser	Thr	His	Arg	Gly	His	Gly	His	Ala	Ile	Ala	Lys	Gly	Cys
65					70					75					80
Asp	Leu	Asn	Gly	Met	Met	Ala	Glu	Ile	Met	Gly	Lys	Arg	Asp	Gly	Leu
				85					90					95	
Gly	His	Gly	Lys	Gly	Gly	Ser	Met	His	Val	Ala	Glu	Ile	Asp	Lys	Gly
			100					105					110		
Met	Leu	Gly	Ala	Asn	Gly	Ile	Val	Ser	Gly	Gly	Phe	Gly	Leu	Ala	Ile
		115					120					125			
Gly	Ala	Ser	Ile	Ser	Ile	Ile	Asn	Gln	Gly	Lys	Asp	Asn	Val	Ala	Val
	130					135					140				
Cys	Phe	Phe	Gly	Asp	Gly	Ala	Ala	Asn	Glu	Cys	Asn	Phe	His	Glu	Gly
145					150					155					160

Leu Asn Phe Ala Ser Ile Leu Asp Leu Pro Val Leu Phe Ile Cys Glu
 165 170 175
 Asn Asn Gln Phe Ala Glu Gly Thr Thr His Asp Tyr Ala Ser Ala Ser
 180 185 190
 Glu Thr Ile Ala Glu Arg Ala Ala Ala Tyr Asn Met Pro Gly Val Arg
 195 200 205
 Val Asp Gly Met Asp Val Met Glu Val Tyr Lys Ala Thr Gln Glu Ala
 210 215 220
 Val Glu Arg Ala Lys Lys Gly Glu Gly Pro Thr Leu Ile Glu Cys Asp
 225 230 235 240
 Thr Tyr Arg Lys Tyr Gly His Phe Glu Gly Asp Glu Gln Lys Val Lys
 245 250 255
 Ser Pro Asp Asp Arg Asn Ala Asp Lys Asn Ala Thr Val Glu Phe Arg
 260 265 270
 Lys Arg Ala Ile Glu Glu Asn Trp Leu Thr Glu Lys Glu Ala Asp Glu
 275 280 285
 Ile Glu Lys Ala Ala Glu Gln Ala Val Glu Asp Ala Val Lys Phe Ala
 290 295 300
 Glu Glu Ser Glu Leu Pro Asp Glu Asp Ser Leu Tyr Lys Asp Val Phe
 305 310 315 320
 Ala

<210> 4648

<211> 288

<212> PRT

<213> S.epidermidis

<400> 4648

Ser Asn Met Thr Lys Val Ile Thr Thr Ile Asn Glu Met Gln Ser Ile
 1 5 10 15
 Val Lys Gln His Gln Arg Glu Gly Lys Thr Ile Gly Phe Val Pro Thr
 20 25 30
 Met Gly Ala Leu His Asp Gly His Leu Thr Met Met Lys Gln Ser Val
 35 40 45
 Ser Glu Asn Asp Leu Thr Val Ile Ser Ile Phe Val Asn Pro Leu Gln
 50 55 60
 Phe Gly Pro Asn Glu Asp Phe Asp Ala Tyr Pro Arg Gln Leu Asp Asp
 65 70 75 80
 Asp Val Ala Ala Val Lys Lys Leu Gln Val Asp Tyr Val Phe His Pro
 85 90 95
 Ser Val Asp Glu Met Tyr Pro Glu Glu Leu Gly Ile His Leu Lys Val
 100 105 110
 Gly His Leu Ala Gln Val Leu Glu Gly Ala Gln Arg Pro Gly His Phe
 115 120 125
 Glu Gly Val Val Thr Val Val Asn Lys Leu Phe Asn Ile Val Gln Pro
 130 135 140
 Asp Tyr Ala Tyr Phe Gly Lys Lys Asp Ala Gln Gln Leu Ala Ile Val
 145 150 155 160
 Glu Lys Met Val Lys Asp Phe Asn Leu Pro Val His Val Ile Gly Ile
 165 170 175
 Asp Ile Val Arg Glu Lys Asp Gly Leu Ala Lys Ser Ser Arg Asn Ile
 180 185 190
 Tyr Leu Thr Ser Glu Glu Arg Lys Glu Ala Lys His Leu Tyr Gln Ser
 195 200 205
 Leu Arg Leu Ala Lys Asn Leu Tyr Glu Ala Gly Glu Arg Asp Ser Asn

210		215		220
Glu Ile Ile Gly Gln Ile	Ala Ala Tyr Leu Asn Lys Asn Ile Ser Gly			
225		230		240
His Ile Asp Asp Leu Gly Ile Tyr Ser Tyr Pro Asn Leu Ile Gln Gln		235		
		245		255
Ser Lys Ile His Gly Arg Ile Phe Ile Ser Leu Ala Val Lys Phe Ser		250		
		265		270
Lys Ala Arg Leu Ile Asp Asn Ile Ile Ile Gly Asp Asp Tyr Ile Asp		280		285
275				

<210> 4649

<211> 656

<212> PRT

<213> S.epidermidis

<400> 4649

Leu Cys Met Thr His Ile Thr Glu Ser Glu Met Lys Gln Lys Tyr Leu	
1	5 10 15
Asp Leu Leu Ser Gln Lys Phe Asp Ser Ala Glu Lys Leu Ala Thr Glu	
	20 25 30
Ile Ile Asn Leu Glu Ser Ile Leu Glu Leu Pro Lys Gly Thr Glu His	
	35 40 45
Phe Val Ser Asp Leu His Gly Glu Tyr Glu Ser Phe Gln His Val Leu	
	50 55 60
Arg Asn Gly Ser Gly Asn Val Arg Ala Lys Ile Asn Asp Ile Phe Lys	
65	70 75 80
Asp Lys Leu Ser Gln Gln Glu Ile Asn Asp Leu Ala Ala Leu Val Tyr	
	85 90 95
Tyr Pro Glu Glu Lys Leu Lys Leu Val Lys Asn Asn Phe Asp Ser Ile	
	100 105 110
Gly Thr Leu Asn Ile Trp Tyr Ile Thr Thr Ile Gln Arg Leu Ile Asp	
	115 120 125
Leu Ile Thr Tyr Cys Ser Ser Lys Tyr Thr Arg Ser Lys Leu Arg Lys	
	130 135 140
Ala Leu Pro Glu Gln Tyr Val Tyr Ile Ile Glu Glu Leu Leu Tyr Lys	
145	150 155 160
Ser Asn Glu Phe His Asn Lys Lys Pro Tyr Tyr Glu Thr Leu Val Asn	
	165 170 175
Gln Ile Ile Glu Leu Glu Gln Ser Asp Asp Leu Ile Ile Gly Leu Ser	
	180 185 190
Tyr Thr Val Gln Arg Leu Val Val Asp His Leu His Val Val Gly Asp	
	195 200 205
Ile Tyr Asp Arg Gly Pro Lys Pro Asp Lys Ile Met Asp Thr Leu Ile	
	210 215 220
Asn Tyr His Ser Val Asp Ile Gln Trp Gly Asn His Asp Val Leu Trp	
225	230 235 240
Ile Gly Ala Tyr Ala Gly Ser Lys Val Cys Leu Ala Asn Leu Leu Arg	
	245 250 255
Ile Cys Ala Arg Tyr Asp Asn Leu Asp Ile Ile Glu Asp Ala Tyr Gly	
	260 265 270
Ile Asn Leu Arg Pro Leu Leu Thr Leu Ala Glu Lys Tyr Tyr Asp Ala	
	275 280 285
Glu Asn Pro Ala Phe Lys Pro Lys Lys Arg Pro Asp Lys Asp Val Ser	
	290 295 300
Leu Thr Lys Arg Glu Glu Ser Gln Ile Thr Lys Ile His Gln Ala Ile	
305	310 315 320

Ala Met Ile Gln Phe Lys Leu Glu Met Pro Ile Ile Lys Arg Arg Pro
 325 330 335
 Ser Phe Glu Met Glu Glu Arg Leu Val Leu Glu Lys Ile Asp Tyr Asp
 340 345 350
 Asn Asn Glu Ile Thr Ile Tyr Asn Lys Thr Tyr Pro Leu Lys Asp Thr
 355 360 365
 Cys Phe Gln Thr Val Asn Pro Asn Asn Pro Ala Glu Leu Leu Ala Glu
 370 375 380
 Glu Lys Glu Val Met Asp Lys Leu Leu Leu Ser Phe Gln Gln Ser Glu
 385 390 395 400
 Lys Leu Arg Arg His Met Ser Phe Leu Met Arg Lys Gly Lys Leu Tyr
 405 410 415
 Leu Pro Tyr Asn Gly Asn Leu Leu Ile His Gly Cys Ile Pro Val Asp
 420 425 430
 Glu Asn Gly Glu Met Glu Ser Phe Glu Ile Glu Gly Glu Arg Leu Ser
 435 440 445
 Gly Arg Glu Leu Leu Asp Val Phe Glu Tyr His Val Arg Arg Ala Phe
 450 455 460
 Asp His Lys Glu Ser Thr Glu Asp Ile Ser Thr Asp Leu Val Trp Tyr
 465 470 475 480
 Leu Trp Thr Gly Lys Tyr Ser Ser Leu Phe Gly Lys Arg Ala Met Thr
 485 490 495
 Thr Phe Glu Arg Tyr Phe Ile Glu Asp Lys Ala Ser His Lys Glu Glu
 500 505 510
 Lys Asn Pro Tyr Tyr Tyr Leu Arg Glu Asp Val Asp Met Ile Arg Lys
 515 520 525
 Met Leu Lys Asp Phe Gly Leu Asn Pro Asp Glu Gly Arg Ile Ile Asn
 530 535 540
 Gly His Thr Pro Val Lys Glu Ile Asp Gly Glu Asp Pro Ile Lys Ala
 545 550 555 560
 Asn Gly Lys Met Leu Val Ile Asp Gly Gly Phe Ser Lys Ala Tyr Gln
 565 570 575
 Ser Thr Thr Gly Ile Ala Gly Tyr Thr Leu Leu Tyr Asn Ser Phe Gly
 580 585 590
 Met Gln Leu Val Ala His Lys Glu Phe Asn Arg Lys Glu Lys Val Leu
 595 600 605
 Ser Met Gly Ala Asp Glu Leu Ser Val Lys Arg Val Val Asp Glu Glu
 610 615 620
 Leu Gln Arg Lys Lys Ile Arg Asp Thr Asn Ile Gly Lys Gln Leu Gln
 625 630 635 640
 Asp Gln Ile Asp Ile Leu Lys Ile Leu Met His Asp Arg Tyr Leu Thr
 645 650 655

<210> 4650

<211> 332

<212> PRT

<213> S.epidermidis

<400> 4650

Phe Leu Met Thr Lys Ile Met Phe Phe Gly Thr Arg Ala Tyr Glu Lys
 1 5 10 15
 Asp Met Ala Leu Arg Trp Gly Lys Lys Asn Asn Ile Asp Val Thr Thr
 20 25 30
 Ser Thr Glu Leu Leu Ser Val Asp Thr Val Asp Gln Leu Lys Asp Tyr
 35 40 45
 Asp Gly Val Thr Thr Met Gln Phe Gly Lys Leu Glu Pro Glu Val Tyr

50		55		60	
Pro Lys Leu Glu Ser Tyr Gly Ile Lys Gln Ile Ala Gln Arg Thr Ala					
65		70		75	80
Gly Phe Asp Met Tyr Asp Leu Glu Leu Ala Lys Lys His Glu Ile Ile					
	85		90		95
Ile Ser Asn Ile Pro Ser Tyr Ser Pro Glu Thr Ile Ala Glu Tyr Ser					
	100		105		110
Val Ser Ile Ala Leu Gln Leu Val Arg Lys Phe Pro Thr Ile Glu Lys					
	115		120		125
Arg Val Gln Ala His Asn Phe Thr Trp Ala Ser Pro Ile Met Ser Arg					
	130		135		140
Pro Val Lys Asn Met Thr Val Ala Ile Ile Gly Thr Gly Arg Ile Gly					
145		150		155	160
Ala Ala Thr Gly Lys Ile Tyr Ala Gly Phe Gly Ala Arg Val Val Gly					
	165		170		175
Tyr Asp Ala Tyr Pro Asn His Ser Leu Ser Phe Leu Glu Tyr Lys Glu					
	180		185		190
Thr Val Glu Asp Ala Ile Lys Asp Ala Asp Ile Ile Ser Leu His Val					
	195		200		205
Pro Ala Asn Lys Asp Ser Phe His Leu Phe Asp Asn Asn Met Phe Lys					
	210		215		220
Asn Val Lys Lys Gly Ala Val Leu Val Asn Ala Ala Arg Gly Ala Val					
225		230		235	240
Ile Asn Thr Pro Asp Leu Ile Glu Ala Val Asn Asn Gly Thr Leu Ser					
	245		250		255
Gly Ala Ala Ile Asp Thr Tyr Glu Asn Glu Ala Asn Tyr Phe Thr Phe					
	260		265		270
Asp Cys Ser Asn Gln Thr Ile Asp Asp Pro Ile Leu Leu Asp Leu Ile					
	275		280		285
Arg Asn Glu Asn Ile Leu Val Thr Pro His Ile Ala Phe Phe Ser Asp					
	290		295		300
Glu Ala Val Gln Asn Leu Val Glu Gly Gly Leu Asn Ala Ala Leu Ser					
305		310		315	320
Val Ile Asn Thr Gly Thr Cys Asp Thr Arg Leu Asn					
	325		330		

<210> 4651

<211> 70

<212> PRT

<213> S.epidermidis

<400> 4651

Ala Ser Met Thr Tyr Ile Ser Leu Ser Gln Lys Ile Arg Asn Ala Asn	
1	5
Ile Leu Asn Tyr Gln Lys Ile Phe Thr Asn Leu Lys Ile Ile Ser Ile	
	20
Leu Ile Thr Ile Leu Leu Ile Leu Ile Tyr Phe Lys Thr Ile Ala Val	
	35
Asp Ser Phe Ile Ala Ser Tyr Val Asp Ser Tyr Ile Lys Lys Ser His	
	50
Tyr Trp Glu Gly Thr Gln	60
65	70

<210> 4652

<211> 295

<212> PRT

<213> S.epidermidis

<400> 4652

Val Lys Val Thr Gln Asn Glu Asn Leu Lys Leu Ala Gln Arg Gly Ala
 1 5 10 15
 Phe Leu Ser Leu Val Ile Tyr Ile Ile Leu Ser Ile Ala Lys Tyr Met
 20 25 30
 Thr Gly Tyr Val Tyr Asp Ser Ala Ala Val Arg Ala Asp Ala Leu Asn
 35 40 45
 Asn Met Thr Asp Ile Leu Val Ser Val Ala Val Ile Val Gly Leu Lys
 50 55 60
 Ile Ser Ile Lys Pro Ala Asp Gln Asn His Pro Tyr Gly His Leu Lys
 65 70 75 80
 Ser Glu Asn Ile Ser Thr Leu Leu Val Ser Phe Ile Ile Met Phe Val
 85 90 95
 Gly Ile Gln Val Ile Ile Glu Asn Phe Pro Arg Leu Phe Thr His Asp
 100 105 110
 Ser His Ile Pro Asn Phe Ile Thr Ile Ile Ile Ser Met Ile Ser Gly
 115 120 125
 Leu Val Met Leu Cys Val Phe Ala Ile Asn Tyr Arg Leu Ser Lys Arg
 130 135 140
 Thr Lys Ser Ser Ser Leu Lys Ser Ala Ala Lys Asp Asn Leu Ser Asp
 145 150 155 160
 Ser Leu Val Ser Ile Gly Thr Ala Ile Gly Leu Met Phe Thr Gln Ile
 165 170 175
 Gly Phe Pro Ile Ile Asp Ile Ile Leu Ala Asn Ile Leu Gly Leu Leu
 180 185 190
 Ile Val Tyr Thr Gly Phe Gly Ile Phe Lys Glu Ser Ile Phe Thr Leu
 195 200 205
 Ser Asp Gly Phe Asn Glu Gln Asp Leu Glu Glu Tyr Arg Leu Asp Ile
 210 215 220
 Leu Glu Val Glu Asp Val Ile Asp Val Asn Asn Ile Lys Gly Arg Tyr
 225 230 235 240
 His Gly Ser Ser Ile Phe Ile Asp Val Thr Ile Val Val Asp Pro Tyr
 245 250 255
 Leu Ser Leu Tyr Glu Ala His Gln Ile Cys Asp Lys Val Glu Ile His
 260 265 270
 Leu His Asn Lys Gly Ile Ser Ser Val Tyr Val His Pro Glu Pro Tyr
 275 280 285
 Thr Thr Lys Asp Glu Val Lys
 290 295

<210> 4653

<211> 353

<212> PRT

<213> S.epidermidis

<400> 4653

Leu Met Ser Thr Ile Lys Asn Ile Asp Gly Pro Lys Asp Phe Val Phe
 1 5 10 15
 Arg Val Leu Ser Gly Val Ala Ile Gly Ile Val Ala Gly Leu Val Pro
 20 25 30
 Asn Ala Ile Leu Gly Glu Ile Phe Lys Tyr Phe Met Gln Tyr His Pro
 35 40 45
 Ile Phe Lys Thr Leu Leu Gly Val Val Gln Ala Ile Gln Phe Thr Val
 50 55 60

Pro Ala Leu Ile Gly Ala Leu Ile Ala Met Lys Phe Asn Met Thr Pro
 65 70 75 80
 Leu Ala Ile Ala Val Val Ala Ser Ala Ser Tyr Val Gly Ser Gly Ala
 85 90 95
 Ala Gln Phe Lys Gln Gly Thr Trp Val Ile Ala Gly Ile Gly Asp Leu
 100 105 110
 Ile Asn Thr Met Leu Thr Ala Ser Ile Ala Val Leu Leu Ile Leu Leu
 115 120 125
 Ile Lys Lys Arg Val Gly Ser Met Ala Leu Ile Val Phe Pro Thr Val
 130 135 140
 Val Gly Gly Leu Ala Ala Thr Ile Gly Val Phe Thr Leu Pro Tyr Val
 145 150 155 160
 Arg Leu Ile Thr Thr Gly Ile Gly Asn Met Val Asn Ser Phe Thr Glu
 165 170 175
 Leu Gln Pro Val Phe Met Ser Met Leu Ile Ser Met Val Phe Ser Phe
 180 185 190
 Ile Ile Ile Ser Pro Leu Ser Thr Val Ala Ile Ala Ile Ala Ile Gly
 195 200 205
 Leu Ser Gly Ile Ala Ala Gly Ser Ala Ser Ile Gly Ile Ala Ala Thr
 210 215 220
 Glu Ala Val Leu Leu Ile Gly Thr Ser Lys Val Asn His Val Gly Ile
 225 230 235 240
 Pro Leu Ser Ile Phe Phe Gly Gly Val Lys Met Met Met Pro Asn Met
 245 250 255
 Val Lys Tyr Pro Val Ile Met Ile Pro Ile Phe Leu Thr Ala Ala Ile
 260 265 270
 Ser Gly Ile Ala Ser Gly Ile Ile Gly Ile Ser Gly Thr Lys Glu Ser
 275 280 285
 Ala Gly Phe Gly Phe Ile Gly Met Val Gly Pro Ile Asn Ala Phe Lys
 290 295 300
 Phe Met His Val Asp Ser Ala Trp Leu Ser Leu Leu Ile Val Ile
 305 310 315 320
 Ala Phe Phe Val Val Pro Phe Leu Val Ala Trp Ile Leu Asp Leu Ile
 325 330 335
 Leu Arg Arg Leu Ile His Leu Tyr Glu Asn Asp Ile Phe Lys Phe Met
 340 345 350
 Gly

<210> 4654

<211> 160

<212> PRT

<213> S.epidermidis

<400> 4654

Glu Lys Ala Thr Thr Met Lys Lys Val Ile Ser Leu Leu Val Val Leu
 1 5 10 15
 Val Ile Ser Ala Val Ser Leu Ser Ala Cys Gly Lys Glu Arg Thr Lys
 20 25 30
 Thr Tyr Glu Gly Glu Val Asn Gly Lys Gln Val Ile Thr Ser Leu Thr
 35 40 45
 Tyr Lys Asp Asp Glu Val Leu Lys Gln Ser Thr Ile Ala Thr Ile Lys
 50 55 60
 Tyr Asp Asp Leu Gly Ile Asp Lys Asp Glu Ala Lys Gln Met Phe Lys
 65 70 75 80
 Asn Asp Glu Gln Ala Phe Lys Gly Ile Asp Gly Val Thr Tyr Lys Ala

				85					90					95			
Asp	Phe	Lys	Asp	Arg	Lys	Ala	Ile	Glu	His	Ile	Asp	Ile	Asp	Tyr	Lys		
			100					105					110				
Asp	Ala	Asp	Ile	Asp	Gln	Leu	Lys	Lys	Asn	Leu	Gly	Phe	Ile	Ser	Ser		
		115					120					125					
Asp	Ala	Lys	Lys	Gly	Asp	His	Val	Ser	Val	Asp	Arg	Val	Val	Lys	Gln		
	130					135					140						
Leu	Lys	Arg	Asn	Gly	Leu	Lys	Asp	Lys	Ser	Lys	Met	Asn	Glu	Asp	Asn		
145					150					155					160		

<210> 4655

<211> 40

<212> PRT

<213> S.epidermidis

<400> 4655

Lys	Ser	Glu	Thr	Asp	Ser	Phe	Gln	Ile	Arg	Arg	Leu	Ala	Pro	Leu	Gln		
1				5					10					15			
Leu	Thr	Met	Ile	Arg	Asn	Ser	Gln	Gln	Gln	Ala	Phe	Phe	Asn	Ser	Phe		
			20					25					30				
Ile	Tyr	Asn	Lys	Ser	Leu	Lys	His										
		35					40										

<210> 4656

<211> 46

<212> PRT

<213> S.epidermidis

<400> 4656

Glu	Ser	Glu	Thr	Thr	Ile	Arg	Gly	Ile	Ile	Asn	Lys	Lys	Pro	Val	Asn		
1				5					10					15			
Glu	Phe	Ile	Lys	Asn	Pro	Phe	Thr	Gly	Tyr	Phe	Ala	Arg	Asn	Tyr	Val		
			20					25					30				
Pro	Ala	Ser	Pro	Phe	Asn	Phe	Asn	Ile	Cys	Lys	Ile	Asn	Ile				
		35					40					45					

<210> 4657

<211> 361

<212> PRT

<213> S.epidermidis

<400> 4657

Arg	Asn	Gly	Thr	Asp	Ser	Met	Lys	Lys	Asn	Lys	Leu	Glu	Leu	Val	Tyr		
1				5					10					15			
Leu	Arg	Ala	Phe	Ile	Cys	Val	Ile	Ile	Ile	Val	Thr	His	Leu	Leu	Thr		
			20					25					30				
Gln	Ile	Thr	Leu	Glu	Asn	Glu	Gln	Met	Ser	Asp	Ser	Ser	Leu	Ile	Leu		
		35					40					45					
Gln	Tyr	Tyr	Ile	Arg	Asn	Ile	Phe	Ile	Phe	Gly	Thr	Pro	Ser	Phe	Ile		
	50					55				60							
Ile	Leu	Ser	Gln	Leu	Leu	Thr	Thr	Leu	Asn	Tyr	Glu	Ser	Val	Thr	Ile		
65					70				75						80		
Asn	Tyr	Leu	Phe	Ser	Arg	Phe	Lys	Tyr	Ile	Phe	Ile	Pro	Tyr	Leu	Leu		
				85					90					95			
Ile	Gly	Leu	Phe	Tyr	Ser	Tyr	Ser	Glu	Ser	Leu	Ile	Thr	Ala	Ser	Ser		
			100					105					110				

Phe Lys Lys Gln Phe Ile Glu Asn Val Val Leu Gly Gln Trp Tyr Gly
 115 120 125
 Tyr Phe Ile Ile Ile Ile Met Gln Phe Phe Val Leu Ser Tyr Ile Ile
 130 135 140
 Tyr Lys Ile Asn Phe Arg Leu Phe Asn Ser Lys Ile Leu Leu Leu Leu
 145 150 155 160
 Ala Phe Ile Val Gln Gln Ser Tyr Leu His Tyr Phe Leu Asn Asn Asp
 165 170 175
 Thr Phe His Gln Phe Met Thr His Tyr Tyr Pro Leu Ser Glu Asn Thr
 180 185 190
 Met Ile Leu Gly Trp Ile Phe Tyr Phe Phe Leu Gly Gly Tyr Ile Gly
 195 200 205
 Tyr Asn Tyr Glu Lys Ile Leu Ser Phe Leu Glu Lys Tyr Leu Ile Ile
 210 215 220
 Val Ile Met Leu Thr Leu Gly Ala Tyr Val Leu Phe Ile Ala Val Ser
 225 230 235 240
 Gly Ser Asp Tyr Trp Asn Val Thr Ser Phe Thr Tyr Thr Leu Thr Leu
 245 250 255
 Tyr Asn Ser Val Met Phe Phe Leu Leu Leu Gly Val Cys Met His Phe
 260 265 270
 Lys Thr Met Leu Leu Asn Thr Ile Lys Ala Ile Ser Ala Phe Ser Phe
 275 280 285
 Phe Ile Tyr Leu Leu His Pro Ile Ile Leu Asp Ser Leu Phe Ala Tyr
 290 295 300
 Thr Asn Ile Phe Glu Asp Asn Thr Ile Val Phe Leu Ala Ile Ser Leu
 305 310 315 320
 Leu Met Ile Leu Gly Ile Cys Ile Gly Val Gly Met Met Leu Arg Glu
 325 330 335
 Phe Tyr Ile Phe Arg Phe Val Ile Gly Lys Gln Pro Tyr Lys Leu Gln
 340 345 350
 Phe Asp Gln Tyr Gln Pro Asn Trp Asn
 355 360

<210> 4658
 <211> 50
 <212> PRT
 <213> S.epidermidis

<400> 4658
 Asn Asn Phe Leu Lys Asn Gly Gly Val Leu Lys Leu Thr Arg Ile Asn
 1 5 10 15
 Asp Phe Asn Glu Val Leu Asn Ser Arg Lys Ser Leu Lys Val Phe Asp
 20 25 30
 Glu Asn Tyr Lys Ile Pro Arg Glu Glu Met Asp Glu Ile Ile Thr Lys
 35 40 45
 Ala Thr
 50

<210> 4659
 <211> 45
 <212> PRT
 <213> S.epidermidis

<400> 4659
 Asn Leu Tyr Leu Ile Met Lys Asn Arg Phe Thr Tyr Ala Asp Lys Asp
 1 5 10 15

Arg Leu Leu Arg Tyr Leu Leu Ile Lys Met Lys Ala Tyr Val Arg Tyr
 20 25 30
 Ser Ile Ala Thr Glu Glu Gln Leu Leu Leu Leu Glu Lys
 35 40 45

<210> 4660
 <211> 45
 <212> PRT
 <213> S.epidermidis

<400> 4660
 Leu Phe Val Ala Phe Ile Lys Pro Met Ser Lys Lys Arg Asn Gly Thr
 1 5 10 15
 Ala Thr Asp Asp Trp Arg Tyr Asp Val Asn Glu Asn Lys His His Phe
 20 25 30
 Ile His Leu Leu Ser Ala Ser Lys Leu Thr Pro Glu Arg
 35 40 45

<210> 4661
 <211> 48
 <212> PRT
 <213> S.epidermidis

<400> 4661
 Gly Pro Tyr Phe Ser Lys Tyr Phe Asn Val Lys Leu His Met Asn Ile
 1 5 10 15
 Lys Tyr Phe Gly Glu Thr Leu Glu Gly Thr Gly Gln Ala Glu Asp Tyr
 20 25 30
 Arg Leu Lys Leu Ser Pro Lys Lys Ala Ser Gln Gln Tyr Val Val Leu
 35 40 45

<210> 4662
 <211> 66
 <212> PRT
 <213> S.epidermidis

<400> 4662
 Thr Arg Ser Ala Ser Tyr Asn Lys Thr Pro Lys Tyr Leu Ile Arg Pro
 1 5 10 15
 Val Gln Val Ser Glu Gln Thr Val Gly Ile Pro Ala Ser Ile Arg Gly
 20 25 30
 Lys Gln Asn Val His Phe Ser Ala Leu Phe Val Phe Gln Leu Lys Tyr
 35 40 45
 Thr Phe Leu Tyr Gly His Pro Val Ile Gln Tyr Leu Gln Pro Arg Gln
 50 55 60
 Ala Ser
 65

<210> 4663
 <211> 51
 <212> PRT
 <213> S.epidermidis

<400> 4663
 Asp Tyr Tyr Phe Arg Lys Ile Pro Leu Tyr Ile Thr Gly Ile Asn Lys
 1 5 10 15

Ile Lys Pro Lys Ser Pro Met Ile Gly Asn Thr Leu Pro Met Arg Glu
 20 25 30
 Met Asn Pro Thr Lys Val Gln Ala Asn Val Ile Ile Ala Ile Ile Thr
 35 40 45
 Ile Arg Ile
 50

<210> 4664

<211> 53

<212> PRT

<213> S.epidermidis

<400> 4664

Lys Ser Ala Ala Ile Ala Ser Cys Phe Ile Leu Ile Ile Asn Ser Gly
 1 5 10 15
 Leu Asn Ser Asn Val Tyr Ile Lys Thr Thr Val Thr Thr Asn Ile Ile
 20 25 30
 Ala Gly Ile Asn Arg Leu Asn Leu Leu Ser Gln Lys Leu Thr Lys Leu
 35 40 45
 Ile Glu Leu Phe Leu
 50

<210> 4665

<211> 527

<212> PRT

<213> S.epidermidis

<400> 4665

Thr Asn Tyr Leu Cys Leu Ser Lys Arg Trp Gly Ala Tyr Ile Val Ser
 1 5 10 15
 Lys Thr Asn Leu Gly Glu Lys Trp Gly Leu Leu Ala Gly Gly Ser Leu
 20 25 30
 Leu Val Asp Tyr Ile Leu Thr Val Ala Val Ser Ile Ser Ser Gly Ala
 35 40 45
 Asp Ala Phe Val Ala Ala Phe Pro His Leu Tyr His Phe Lys Val Leu
 50 55 60
 Ile Ala Cys Leu Leu Val Leu Phe Ile Leu Met Met Asn Leu Arg Gly
 65 70 75 80
 Leu Thr Glu Ser Ala Thr Val Leu Ser Tyr Pro Val Tyr Leu Phe Ile
 85 90 95
 Ile Gly Leu Ile Val Leu Ile Val Val Gly Thr Phe Arg Val Ala Thr
 100 105 110
 Gly Gln Ile Ala Pro His Ile His Ser Thr Val Gly Ser Thr Val Pro
 115 120 125
 Gly Val Thr Leu Phe Leu Leu Lys Ala Phe Ser Ser Gly Ala Ser
 130 135 140
 Ser Leu Thr Gly Val Glu Ala Ile Ser Asn Ala Val Thr Asn Phe Lys
 145 150 155 160
 Asn Pro Ala Pro Lys Asn Ala Val Lys Thr Leu Val Thr Met Gly Thr
 165 170 175
 Ile Leu Ala Val Leu Leu Val Gly Ile Val Val Leu Ser Tyr Ile Tyr
 180 185 190
 Gly Ile Met Pro Gln Thr Glu Thr Thr Val Leu Ser Gln Leu Ala Ser
 195 200 205
 Gln Ile Phe Gly Glu Asn Val Ala Phe Tyr Phe Ile Gln Ala Thr Thr
 210 215 220

Val Met Ile Leu Val Leu Ala Ala Asn Thr Gly Phe Thr Ala Phe Pro
 225 230 235 240
 Met Leu Ala Ala Ser Met Ser Lys Asp Lys Tyr Met Pro Arg Met Phe
 245 250 255
 Thr Val Arg Gly Asp Arg Leu Gly Tyr Ser Asn Ser Ile Ile Ile Leu
 260 265 270
 Gly Val Leu Ala Ile Ile Leu Ile Ile Leu Phe Glu Gly Met Thr Glu
 275 280 285
 Asn Leu Ile Pro Leu Tyr Ala Val Gly Val Phe Ile Pro Phe Thr Leu
 290 295 300
 Ala Gln Phe Gly Met Val Leu Lys Trp Leu Arg Glu Arg Pro Glu Arg
 305 310 315 320
 Trp Gly Ile Lys Leu Thr Ile Asn Leu Ile Gly Gly Thr Ile Thr Phe
 325 330 335
 Ile Val Phe Met Ile Leu Leu Ile Thr Lys Leu Asn Gln Val Trp Pro
 340 345 350
 Ile Leu Leu Phe Leu Pro Phe Ile Val Phe Ile Phe Ile Arg Ile His
 355 360 365
 Val His Tyr Glu Asn Ile Ala Cys Glu Leu Arg Ser Glu Ile Asp Ile
 370 375 380
 His Asp Ile Pro Val Val Asp Arg Asn Leu Ala Ile Val Pro Ile Gln
 385 390 395 400
 Ser Ile Thr Thr Val Val Asp Lys Ser Ile Tyr Tyr Ala Lys Leu Leu
 405 410 415
 Ala Asn Asp Asp Val Ile Ala Val His Val Thr Phe Gly Asp Glu Asp
 420 425 430
 Glu Gln Ala Phe Met Thr Lys Trp Lys Lys His Phe Pro Asp Val Arg
 435 440 445
 Leu Val Ile Leu His Ser Glu Tyr Arg Ser Ile Ile His Pro Ile Ser
 450 455 460
 Arg Phe Ile Asp Lys Ile Arg Lys Lys Ala Asn Asp Lys Asn Tyr Leu
 465 470 475 480
 Ile Thr Val Val Val Pro Glu Phe Ile Pro Lys Lys Ala Trp Gln His
 485 490 495
 Leu Leu His Asn Gln Thr Ser Leu Arg Leu Lys Leu His Leu Ile Tyr
 500 505 510
 Gln Lys Asn Val Thr Leu Cys Thr Ile Pro Phe Lys Leu Ile Lys
 515 520 525

<210> 4666

<211> 50

<212> PRT

<213> S.epidermidis

<400> 4666

Leu Asn Asn Ala Leu Leu Phe Val Lys Ile Ile Lys Pro Pro Thr Gln
 1 5 10 15
 Ile Ala Arg Met Leu Met Gly Asn Thr Leu Thr Lys Tyr Ala Glu Ile
 20 25 30
 Gly Ala Ala Thr Ile Pro Pro Arg Leu Lys Ala Ile Thr Ala Asn Gln
 35 40 45
 Leu Ile
 50

<210> 4667

<211> 330

<212> PRT

<213> S.epidermidis

<400> 4667

His Ser Tyr Leu Cys Asn Phe Ile Met Lys Glu Phe Val Lys Met Lys
 1 5 10 15
 Lys Phe Gly Lys Lys Val Val Leu Val Gly Asp Gly Ser Val Gly Ser
 20 25 30
 Ser Tyr Ala Phe Ala Met Val Thr Gln Gly Ile Ala Asp Glu Phe Val
 35 40 45
 Ile Ile Asp Ile Ala Lys Asp Lys Val Glu Ala Asp Val Lys Asp Leu
 50 55 60
 Asn His Gly Ala Leu Tyr Ser Ser Ser Pro Val Thr Val Lys Ala Gly
 65 70 75 80
 Glu Tyr Glu Asp Cys Lys Asp Ala Asp Leu Val Val Ile Thr Ala Gly
 85 90 95
 Ala Pro Gln Lys Pro Gly Glu Thr Arg Leu Gln Leu Val Glu Lys Asn
 100 105 110
 Thr Lys Ile Met Lys Ser Ile Val Thr Ser Val Met Asp Ser Gly Phe
 115 120 125
 Asp Gly Phe Phe Leu Ile Ala Ala Asn Pro Val Asp Ile Leu Thr Arg
 130 135 140
 Tyr Val Lys Glu Val Thr Gly Leu Pro Ala Glu Arg Val Ile Gly Ser
 145 150 155 160
 Gly Thr Val Leu Asp Ser Ala Arg Phe Arg Tyr Leu Ile Ser Lys Glu
 165 170 175
 Leu Gly Val Thr Ser Ser Ser Val His Ala Ser Ile Ile Gly Glu His
 180 185 190
 Gly Asp Ser Glu Leu Ala Val Trp Ser Gln Ala Asn Val Gly Gly Ile
 195 200 205
 Ser Val Tyr Asp Thr Leu Lys Glu Glu Thr Gly Ser Asp Ala Lys Ala
 210 215 220
 Asn Glu Ile Tyr Ile Asn Thr Arg Asp Ala Ala Tyr Asp Ile Ile Gln
 225 230 235 240
 Ala Lys Gly Ser Thr Tyr Tyr Gly Ile Ala Leu Ala Leu Leu Arg Ile
 245 250 255
 Ser Lys Ala Leu Leu Asn Asn Glu Asn Ser Ile Leu Thr Val Ser Ser
 260 265 270
 Gln Leu Asn Gly Gln Tyr Gly Phe Asn Asp Val Tyr Leu Gly Leu Pro
 275 280 285
 Thr Leu Ile Asn Gln Asn Gly Ala Val Lys Ile Tyr Glu Thr Pro Leu
 290 295 300
 Asn Asp Asn Glu Leu Gln Leu Leu Glu Lys Ser Val Lys Thr Leu Glu
 305 310 315 320
 Asp Thr Tyr Asp Ser Ile Lys His Leu Val
 325 330

<210> 4668

<211> 88

<212> PRT

<213> S.epidermidis

<400> 4668

Ile Pro Ser Ala Ser Thr Pro Glu Asn Glu Pro Gly Pro Thr Ala Leu
 1 5 10 15
 Ile Asn Ile Asn Ala Ile Thr Ile Ser Gly Asn Thr Arg Ile Met Leu

65 70 75 80
 Leu Gln Ile Pro Thr Lys
 85

<210> 4671
 <211> 316
 <212> PRT
 <213> S.epidermidis

<400> 4671
 Trp Arg Tyr Leu Leu Met Ser Ile Thr Tyr Pro Gly Thr Val Tyr Leu
 1 5 10 15
 Ile Gly Ala Gly Pro Gly Asn Pro Asn Leu Leu Thr Lys Lys Ala Glu
 20 25 30
 Arg Leu Ile Arg Ser Ala Asp Val Ile Leu Phe Asp Arg Leu Val Asn
 35 40 45
 Pro Phe Ile Leu Gln Tyr Ala Ser Ser Gln Thr Lys Val Ile Asn Val
 50 55 60
 Gly Lys Lys Pro Tyr Cys Lys His Ile Gln Gln Glu Glu Ile Asn Gln
 65 70 75 80
 Lys Ile Val Glu Ala Ala Asn Gln Tyr Gln Cys Val Val Arg Leu Lys
 85 90 95
 Gly Gly Asp Pro Ala Ile Phe Gly Arg Ile Thr Glu Glu Val Gln Thr
 100 105 110
 Leu Glu Asp His His Ile His Tyr Glu Ile Val Pro Gly Val Thr Ser
 115 120 125
 Ala Ser Ala Ala Val Ala Thr Met Asn Met Gly Leu Thr Met Arg Ser
 130 135 140
 Ile Ala Pro Ser Val Thr Phe Ser Thr Gly His Phe Lys Asp Ser Val
 145 150 155 160
 Asn His Asp Met Asp Ile Arg Asn Leu Ile Asn Gly Gly Thr Leu Ala
 165 170 175
 Ile Tyr Met Gly Val Lys Arg Leu Gly Gln Ile Ile Lys Gln Ile Glu
 180 185 190
 Ser Tyr Thr Asn Glu Asp Tyr Pro Ile Ala Ile Val Phe Asn Ala Ser
 195 200 205
 Cys Tyr Asn Glu Lys Ile Val Ile Gly His Leu Ser Thr Ile Glu Glu
 210 215 220
 Gln Leu Val Ser Gln Gln Leu Glu Gly His Pro Gly Ile Cys Ile Leu
 225 230 235 240
 Gly Asn Ile Leu Asp Asp Ile Asn Arg Thr Leu Leu Asn Asn Asn Lys
 245 250 255
 Asn Asp Lys Gly Asn Leu Tyr Leu Ile Lys Gly Asp Lys Glu Arg Ala
 260 265 270
 Ile Ala Lys Ala Glu Thr Leu Tyr Asp Glu Gly Ile Gln Cys Leu Ile
 275 280 285
 Asp Phe Asp His Ser Tyr His Ile Ser Gln Gln Asn Val Tyr Asn Glu
 290 295 300
 Met Ile Lys His Lys Ser Ile Lys Thr Ile Tyr Val
 305 310 315

<210> 4672
 <211> 43
 <212> PRT
 <213> S.epidermidis

<400> 4672

Lys Leu Lys Ala Pro Val His Thr Leu Met Tyr Arg Arg Leu Ile Tyr
 1 5 10 15
 Val Leu Lys Tyr Thr Leu Phe Tyr Phe Glu Leu Ile Asn Gly His Val
 20 25 30
 Ile Asp Tyr Leu Phe Ile Lys Gln Ile Asn Leu
 35 40

<210> 4673

<211> 198

<212> PRT

<213> S.epidermidis

<400> 4673

Arg Asn Gly Ala Tyr Val Met Asn Tyr Gln Ile Lys Arg Asn Thr Glu
 1 5 10 15
 Glu Thr Gln Leu Asn Ile Ser Leu Ala Asn Asn Gly Thr Gln Ser His
 20 25 30
 Ile Asn Thr Gly Val Gly Phe Leu Asp His Met Leu Thr Leu Phe Thr
 35 40 45
 Phe His Ser Gly Leu Thr Leu Ser Ile Glu Ala Thr Gly Asp Thr Tyr
 50 55 60
 Val Asp Asp His His Ile Thr Glu Asp Ile Gly Ile Val Ile Gly Gln
 65 70 75 80
 Leu Leu Leu Glu Leu Ile Lys Thr Gln Gln Ser Phe Thr Arg Tyr Gly
 85 90 95
 Cys Ser Tyr Val Pro Met Asp Glu Ala Leu Ala Arg Thr Val Val Asp
 100 105 110
 Ile Ser Gly Arg Pro Tyr Phe Ser Phe Asn Ser Lys Leu Ser Ala Gln
 115 120 125
 Lys Val Gly Thr Phe Asp Thr Glu Leu Val Glu Glu Phe Phe Arg Ala
 130 135 140
 Leu Ile Ile Asn Ala Arg Leu Thr Val His Ile Asp Leu Leu Arg Gly
 145 150 155 160
 Gly Asn Thr His His Glu Ile Glu Ala Ile Phe Lys Ser Phe Ala Arg
 165 170 175
 Ala Leu Lys Ile Ser Leu Ala Gln Asn Glu Asp Gly Arg Ile Pro Ser
 180 185 190
 Ser Lys Gly Val Ile Glu
 195

<210> 4674

<211> 146

<212> PRT

<213> S.epidermidis

<400> 4674

Phe Tyr Leu Ala Gly Ala Ile Ser Asp Lys Ile Leu Asn Thr Gly Gln
 1 5 10 15
 Ser Arg Phe Val Ala Arg Gly Val Ile Ala Ile Ala Gly Phe Val Val
 20 25 30
 Phe Ser Ile Ser Ile Phe Leu Ala Val His Thr Asp Asn Leu Tyr Val
 35 40 45
 Thr Ile Phe Trp Leu Ser Leu Cys Leu Gly Gly Val Arg Ile Ser Met
 50 55 60
 Gly Met Ser Trp Ala Ala Ala Thr Asp Leu Gly Arg Asn Phe Ser Gly

1785

65					70					75				80	
Thr	Val	Ser	Gly	Trp	Met	Asn	Leu	Trp	Gly	Asn	Val	Gly	Ala	Leu	Ile
				85					90					95	
Ser	Pro	Leu	Leu	Ala	Gly	Ile	Val	Val	Asp	His	Leu	Gly	Trp	Ser	Met
			100					105					110		
Thr	Leu	Gln	Leu	Leu	Ile	Val	Pro	Ala	Ile	Ile	Ala	Ala	Ile	Leu	Trp
		115					120					125			
Phe	Phe	Val	Lys	Pro	Asp	Lys	Pro	Leu	Ile	Val	Ser	Glu	Glu	His	Val
	130					135					140				
Asn	Lys														
145															

<210> 4675
 <211> 45
 <212> PRT
 <213> S.epidermidis

<400> 4675															
Lys	Gly	Leu	Ala	Ala	Leu	Ile	Ala	Gln	Ser	Asn	Glu	Phe	Thr	Phe	Lys
1				5				10						15	
Ile	Ala	Phe	Asn	Leu	Ser	Lys	Lys	Arg	Tyr	Ser	Val	Tyr	Tyr	Ser	Ile
			20					25					30		
Gln	Ile	Asn	Lys	Ile	Thr	Lys	Gly	Pro	Asn	Thr	Leu	Asp			
		35					40					45			

<210> 4676
 <211> 48
 <212> PRT
 <213> S.epidermidis

<400> 4676															
Ile	Leu	Met	Ala	Val	Leu	Trp	Ala	Ile	Ile	Ala	Lys	Asp	Leu	Ala	Glu
1				5				10						15	
Gln	His	Lys	Met	Val	Asn	Asp	Ala	Glu	Lys	Arg	Leu	Leu	Ile	Lys	Ile
			20					25					30		
Val	Ile	Leu	Ser	Gln	Leu	Arg	Asn	Leu	Tyr	His	Arg	Gly	Asn	Val	Phe
		35					40					45			

<210> 4677
 <211> 95
 <212> PRT
 <213> S.epidermidis

<400> 4677															
Thr	Ser	Met	Ala	Ala	Glu	Ile	Lys	Gln	Gly	Asp	His	Lys	Phe	Tyr	Val
1				5				10						15	
Gly	Asn	Asp	Glu	Asn	Asn	Pro	Lys	Ala	Val	Ile	Thr	Phe	Lys	Glu	Val
			20					25					30		
Asp	Asn	Asn	Glu	Ile	Asp	Ile	Asp	His	Thr	Gly	Val	Ser	Asp	Glu	Leu
		35					40					45			
Gly	Gly	Gln	Gly	Leu	Gly	Lys	Lys	Leu	Val	Asn	Arg	Val	Val	Glu	His
	50					55				60					
Ala	Arg	Glu	Asn	Asn	Leu	Lys	Ile	Ile	Ala	Ser	Cys	Pro	Phe	Ala	Lys
65					70				75					80	
Asn	Val	Leu	Glu	Lys	Asp	Asp	His	Ala	Gln	Asp	Val	Tyr	Leu	Gly	
				85					90					95	

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Asp Thr Leu Asp Val Phe Lys Asp Thr Lys Ala Trp Leu Arg Glu Tyr
 50 55 60
 Phe Lys Gly Asn Tyr Pro Glu Ile Lys Val Pro Leu Ala Pro Lys Gly
 65 70 75 80
 Thr Asp Phe Gln Gln Lys Val Trp Asn Glu Leu Gln Thr Ile Arg Tyr
 85 90 95
 Arg Glu Leu Lys Thr Tyr Gly Glu Ile Ala Lys Thr Val Gly Arg Ala
 100 105 110
 Met Asn Lys Pro Ala Met Ser Ala Gln Ala Val Gly Gly Ala Val Gly
 115 120 125
 Ser Asn Pro Ile Ser Ile Leu Ile Pro Cys His Arg Val Val Gly Lys
 130 135 140
 Asp Gly Asn Leu Thr Gly Tyr Gly Gly Thr Leu Asp Asn Lys Ile Lys
 145 150 155 160
 Leu Leu Lys Leu Glu Glu Ile Asp Met Thr His Leu Tyr Arg Pro Lys
 165 170 175
 Lys Thr Thr Lys Pro
 180

<210> 4680
 <211> 43
 <212> PRT
 <213> S.epidermidis

<400> 4680
 Tyr Ser His Leu Tyr Phe Val Trp Tyr Asn His Phe Lys Tyr Glu Asn
 1 5 10 15
 Val Val Arg Asp Phe Met Asn Leu Glu Lys Ser Tyr Ile Glu Gln Gln
 20 25 30
 Val Thr Asn Arg Gly Lys Ser Thr Ala Val Ser
 35 40

<210> 4681
 <211> 54
 <212> PRT
 <213> S.epidermidis

<400> 4681
 Val Ile Asn Leu Ile Asp Gly Ser Ile Tyr His Phe Ile Asn Met Ile
 1 5 10 15
 Tyr Leu Ile His Lys Lys Ser Val Glu Leu Leu Leu Asn Lys Leu Ile
 20 25 30
 Glu Lys Asp Thr Leu Tyr Phe Leu Phe Leu Gln Ser Ser Phe Leu Phe
 35 40 45
 Ser Ile Thr Lys Arg Met
 50

<210> 4682
 <211> 454
 <212> PRT
 <213> S.epidermidis

<400> 4682
 Gln Leu Phe Tyr Arg Asp Asn Leu Lys Val Gly Ile Lys Leu Ile Cys
 1 5 10 15
 Ser Asn Cys Gly Ala His Leu Glu Lys Asp Asp Lys Phe Cys Val Asn

<210> 4683
 <211> 70
 <212> PRT
 <213> S.epidermidis

<400> 4683
 Ser Ile Ile Tyr Ile Lys Asp Glu Phe Val Met Phe Ile Leu Val Asn
 1 5 10 15
 Thr Ile Leu Phe Ile Ala Ile Phe Gly Tyr Thr Ala Met Thr Leu Val
 20 25 30
 Lys Phe Phe Lys Arg Ser Lys Glu Gly Asp Cys Gly Gly Cys Lys Ser
 35 40 45
 Asn Cys Lys Cys Asp Thr Asn Thr Ser Ser His Lys Asn Lys Leu Asn
 50 55 60
 Ile Pro His Ile Lys Ser
 65 70

<210> 4684
 <211> 158
 <212> PRT
 <213> S.epidermidis

<400> 4684
 Met Ser Ile Tyr Asp Ile Glu Val Glu Asn Tyr Asp Gly Ser Thr Tyr
 1 5 10 15
 Leu Leu Lys Arg Tyr Lys Gly Lys Val Leu Ile Ile Val Asn Thr Ala
 20 25 30
 Thr Asn Cys Thr Leu Asn Asp Gln Phe Asn Lys Leu Glu Met Leu Tyr
 35 40 45
 Lys Lys Tyr His Lys Tyr Gly Leu Glu Ile Leu Ser Phe Pro Cys Asn
 50 55 60
 Asp Phe Asn Asn Gln Glu Pro Gly Leu Ile Lys Asp Ile Tyr Arg Val
 65 70 75 80
 Tyr Lys Tyr Lys Phe Gly Ile Thr Phe Pro Ile His Ala Lys Ile Asn
 85 90 95
 Val Asn Gly Glu His Glu His Pro Leu Tyr Thr Leu Leu Lys Cys Lys
 100 105 110
 Gln Pro Gly Leu Phe Gly Ser Gln Ile Lys Trp Asn Phe Thr Lys Phe
 115 120 125
 Val Val Asp Gln Gln Gly Asn Ile Val Lys Arg Phe Leu Pro Cys Asp
 130 135 140
 Asn Pro Asn Gln Met Glu Lys Leu Ile Arg Gln Leu Leu Lys
 145 150 155

<210> 4685
 <211> 403
 <212> PRT
 <213> S.epidermidis

<400> 4685
 Ile Lys Val Tyr Asn Asn Leu Glu Glu Arg Ile Lys Met Asn Gln Thr
 1 5 10 15
 Leu Val Gln His Leu Arg Glu Lys Glu Gln Arg Met Lys Glu Ile Arg
 20 25 30 /
 Arg Tyr Leu His Glu Asn Pro Glu Leu Ser Phe Glu Glu Asn Glu Thr
 35 40 45

Ser Lys Tyr Ile Ala Asn Phe Tyr Lys Asp Lys Asp Cys Leu Val Glu
 50 55 60
 Thr Asn Val Gly Pro Asn Gly Ile Lys Val Thr Ile Ala Gly Lys His
 65 70 75 80
 Pro Gly Lys Thr Ile Ala Ile Arg Ala Asp Phe Asp Ala Leu Pro Ile
 85 90 95
 Lys Glu Glu Thr Glu Leu Pro Tyr Ala Ser Lys Asn Glu Gly Val Met
 100 105 110
 His Ala Cys Gly His Asp Ala His Thr Ala Tyr Met Leu Ile Leu Gly
 115 120 125
 Glu Thr Leu Ile Glu Met Lys Asp Gln Leu Arg Gly Asn Val Val Ile
 130 135 140
 Ile His Gln Pro Ala Glu Met Pro Pro Gly Gly Ala Lys Gly Met
 145 150 155 160
 Ile Asp Asp Gly Val Leu Glu Gly Val Asp His Val Leu Gly Ala His
 165 170 175
 Val Met Ser Met Met Glu Thr Gly Lys Ile Tyr Tyr Arg Glu Gly Phe
 180 185 190
 Val Gln Thr Gly Arg Ala Tyr Phe Arg Leu Val Val Lys Gly Gln Gly
 195 200 205
 Gly His Gly Ser Ser Pro His Thr Ser Asn Asp Ala Ile Val Ala Gly
 210 215 220
 Ala His Phe Val Thr Thr Ala Gln Thr Ile Val Ser Arg Arg Leu Asn
 225 230 235 240
 Pro Phe Glu Thr Gly Val Val Thr Ile Gly Ser Phe Asp Gly Lys Gly
 245 250 255
 Gln Phe Asn Val Ile Lys Asp Thr Ile Thr Ile Glu Gly Asp Val Arg
 260 265 270
 Ala Leu Thr Asp Asp Thr Arg Asp Asn Ile Gln Asn Glu Met Thr Arg
 275 280 285
 Leu Val Arg Gly Leu Glu Glu Met Phe Gly Val Ile Cys Asp Phe Glu
 290 295 300
 Phe Lys Lys Asp Tyr Pro Ala Leu Tyr Asn Asp Pro Glu Phe Thr Ser
 305 310 315 320
 Tyr Val Ala Thr Thr Leu Lys Asn Ala Lys Leu Asp Asp Ile Lys Ala
 325 330 335
 Ile Asp Ile Cys Glu Pro Gln Pro Pro Ser Glu Asp Phe Ala Phe Tyr
 340 345 350
 Ala Leu Glu Arg Pro Ser Thr Phe Ile Tyr Ser Gly Ala Ala Pro Glu
 355 360 365
 Asp Gly Pro Met Tyr Pro His His His Pro Lys Phe Asn Ile Asn Glu
 370 375 380
 Thr Ser Met Leu Val Val Ala Glu Ala Val Gly Thr Ile Val Leu Asp
 385 390 395 400
 Tyr Leu Lys

<210> 4686

<211> 48

<212> PRT

<213> S.epidermidis

<400> 4686

Leu Ile Tyr Tyr Ile Asp Val His Asn Leu Ser Thr Ile Thr Cys Asn
 1 5 10 15
 Leu Ile Ile Tyr His Thr Asn Ile Lys Ser Lys Glu Met Met Val Ile

Leu Thr Gln Gly Thr Ile Lys Phe Met Ala Thr Val Gly Glu Glu Met
 145 150 155 160
 Glu Gln Ser Gly Ser Gln Gln Leu Phe Glu Lys Gly Tyr Ala Asp Asp
 165 170 175
 Leu Asp Ala Leu Leu Ile Ala Glu Pro Ser Phe Pro Ser Leu Val Tyr
 180 185 190
 Ala His Lys Gly Ser Met Asp Phe Arg Ile Lys Ser Lys Gly Arg Ala
 195 200 205
 Ser His Ser Ser Ile Pro Phe Leu Gly Gln Asn Ala Ile Lys Pro Leu
 210 215 220
 Leu Glu Phe Ile Gln Asn Ile Asn Gln Glu Tyr Glu Lys Ile Met Gln
 225 230 235 240
 Thr Val Lys Gly Glu Ser Leu Asp Phe Ser Asn Met Ile Asn Lys Leu
 245 250 255
 Glu Asn Gln Leu Pro Asn His Ile Thr Lys Glu Lys Ala Gln Glu Leu
 260 265 270
 Ile Gln Gly Leu Val Met Thr Asn Ser Ile Val Gln Gly Gly Thr Gln
 275 280 285
 Val Asn Ser Val Pro Asp Phe Ala Thr Ala Glu Phe Asn Val Arg Thr
 290 295 300
 Ile Pro Glu Tyr Asn Asn Asn Lys Val Lys Ala Leu Phe Asn Lys Tyr
 305 310 315 320
 Val Glu Gln Ala Asn His Asn Gly Ala Ser Leu Thr Gln Glu Leu Tyr
 325 330 335
 Leu Asp Leu Glu Pro Val Val Thr Thr Gly Gln Asn Arg Leu Val Glu
 340 345 350
 Leu Gly Phe Asp Ile Ala Lys Ser His Phe Ser Asn Glu Arg Asp Leu
 355 360 365
 Ile Ile Thr Pro Thr Val Ala Val Thr Asp Ala Ser Asn Leu Leu Lys
 370 375 380
 Gly Lys Asp Glu Asn Phe Pro Phe Leu Met Phe Gly Pro Gly Asn Gly
 385 390 395 400
 Pro His Gln Ile Asn Glu Cys Val Glu Lys Val Asn Tyr Leu Glu Phe
 405 410 415
 Val Glu Tyr Tyr Ile Glu Phe Ile Thr Ser Tyr Leu Asn Glu Lys
 420 425 430

<210> 4690

<211> 290

<212> PRT

<213> S.epidermidis

<400> 4690

Lys Val Asn Leu Leu Lys Phe His Asn Lys Ile Lys Gly Tyr Thr Gln
 1 5 10 15
 Asn Arg Gln Pro Gly Ile Glu Ala Asp Met Glu Pro Lys Pro Ile Ala
 20 25 30
 Glu Leu Glu Glu Tyr Lys Ala Ala Gly Lys Leu Glu Asn Lys Val Ala
 35 40 45
 Leu Ile Thr Gly Gly Asp Ser Gly Ile Gly Arg Ala Ile Ala Ile Leu
 50 55 60
 Tyr Ala Lys Glu Gly Ala Asn Val Ala Ile Gly Tyr Tyr Asp Glu His
 65 70 75 80
 Gln Asp Ala Glu Asp Thr Val Asn Arg Leu Gln Glu Met Gly Val Lys
 85 90 95
 Ala Lys Ala Tyr Ala His Asp Leu Lys Asp Glu Lys Gln Ser Gln Lys

	100		105		110										
Leu	Ile	Lys	Asp	Val	Ile	Asn	Asp	Phe	Gly	Ser	Leu	Asn	Ile	Leu	Val
	115		120		125										
Asn	Asn	Gly	Gly	Val	Gln	Phe	Pro	Arg	Asp	His	Phe	Glu	Asp	Ile	Thr
	130		135		140										
Pro	Gln	Gln	Val	Lys	Glu	Thr	Phe	Met	Thr	Asn	Ile	Phe	Gly	Met	Met
	145		150		155										160
Phe	Leu	Ser	Gln	Ala	Ala	Val	Pro	Tyr	Leu	Ser	Glu	Gly	Asp	Thr	Ile
			165		170										175
Ile	Asn	Thr	Thr	Ser	Val	Thr	Ala	Tyr	Lys	Gly	Ser	Gly	His	Leu	Ile
			180		185										190
Asp	Tyr	Ser	Ala	Thr	Lys	Gly	Ala	Ile	Val	Ser	Phe	Thr	Arg	Ser	Leu
			195		200										205
Ala	Thr	Thr	Leu	Met	Glu	Lys	Gly	Ile	Arg	Val	Asn	Ala	Val	Ala	Pro
			210		215										220
Gly	Pro	Ile	Tyr	Ser	Pro	Leu	Ile	Pro	Ala	Thr	Phe	Asp	Glu	Glu	Lys
					230										240
Val	Glu	His	Gln	Gly	Asp	Glu	Thr	Pro	Met	Gly	Arg	Arg	Gly	Gln	Pro
					245										255
Ala	Glu	Leu	Ala	Pro	Ser	Tyr	Val	Phe	Leu	Ala	Thr	His	Ala	Asp	Ser
			260		265										270
Ser	Tyr	Ile	Thr	Gly	Gln	Val	Ile	His	Val	Asn	Gly	Gly	Asp	Phe	Ile
			275		280										285
Thr	Ser														
															290

<210> 4691

<211> 40

<212> PRT

<213> S.epidermidis

<400> 4691

Ser	Phe	Arg	Tyr	Thr	Arg	Phe	Val	Glu	Lys	Cys	Gly	Ser	Tyr	Gly	Gln
1				5					10					15	
Asn	Gln	Ser	Asp	Ile	Gly	Phe	Leu	His	His	Ile	Lys	Phe	Gln	Pro	Leu
			20					25					30		
Gln	Leu	His	Val	Leu	Tyr	Leu	Pro								
			35				40								

<210> 4692

<211> 51

<212> PRT

<213> S.epidermidis

<400> 4692

Asp	Ile	Arg	Tyr	Phe	Thr	Ser	Val	Leu	Asn	Glu	Ile	Phe	Leu	Val	Tyr
1				5					10					15	
Asn	Ser	Ile	Ile	Leu	Thr	Met	Ser	Asn	Leu	Lys	Ser	Thr	Ile	Thr	Cys
			20					25					30		
Ser	Phe	Leu	Tyr	Leu	Cys	Glu	Ile	Ser	Gln	His	Phe	Ser	Gly	Arg	Tyr
			35				40					45			
Ile	Tyr	Cys													
			50												

<210> 4693

<211> 65

<212> PRT
 <213> S.epidermidis

<400> 4693
 Gln Gln Phe Tyr Gly Ser Ser Leu Asn Gln Thr Asn Leu Leu Leu Leu
 1 5 10 15
 Val Lys Asn Thr Leu Ile Asn Asn Ile Phe Gln Thr His Ala Met Thr
 20 25 30
 Phe Ile Ser Leu Arg Val Phe Ile Leu Leu Leu Cys Gly Ile Glu His
 35 40 45
 Gly Ser Asp Lys Arg Ile Val Phe Phe Ile Ser Tyr Lys Leu Leu Asn
 50 55 60
 Leu
 65

<210> 4694
 <211> 40
 <212> PRT
 <213> S.epidermidis

<400> 4694
 Asp Ile Tyr Tyr Lys Trp Leu Asn Leu Leu Leu Val Val Asp Tyr His
 1 5 10 15
 Phe Asp Ile Asp Ser Val Leu Lys Thr Leu Asn Gln Cys Tyr Val Asn
 20 25 30
 Val Asn Leu Cys Lys Phe Ile Pro
 35 40

<210> 4695
 <211> 51
 <212> PRT
 <213> S.epidermidis

<400> 4695
 Gln Lys Cys Tyr Gly Asn Lys Asp Ile Ala Glu Lys Leu Phe Val Ser
 1 5 10 15
 Val Lys Thr Val Glu Ala His Lys Thr His Ile Met Thr Lys Leu Asn
 20 25 30
 Leu Lys Ser Lys Pro Glu Leu Val Glu Tyr Ala Leu Lys Lys Lys Leu
 35 40 45
 Leu Glu Phe
 50

<210> 4696
 <211> 695
 <212> PRT
 <213> S.epidermidis

<400> 4696
 Arg Asn Leu Phe Asn His Ala Tyr Leu Val Lys Lys Leu Asn Ser Lys
 1 5 10 15
 Ile Lys Ile Val Gly Glu Ile His Gly Pro Leu Glu Tyr Ile Asn Glu
 20 25 30
 Asn Ile Asp Leu Ala Leu Asp Cys Ile Asp Cys Val Arg Val Ser Thr
 35 40 45
 Ala Arg Ile Lys Asn Glu Phe Ile Ala Lys Tyr Asp Tyr His Arg Val

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50	55	60
Phe Asn Gln Tyr Val	Asn Ala Gln His Ile Asp	Leu Lys Ser Glu Pro
65	70	75
Ile Asn Thr Lys Arg	Asn Phe Leu Ile Lys Ala Arg Phe Glu Asp Glu	80
	85	90
Val Lys Asp Ile Ser Tyr Ile Ile Lys Leu Phe Asn Tyr Ile Ile Lys		95
	100	105
Asn Gln Ile Val Asp Asp Ala Gln Leu Tyr Leu Ile Gly Tyr Gly Pro		110
	115	120
Ser Glu Met Leu Tyr Lys Asn Leu Ile Asn Tyr Tyr His Leu Asn Glu		125
	130	135
Tyr Ile His Ile Asn Glu Lys Glu Pro Gln Ser Tyr Ile Tyr Val Ser		140
145	150	155
Ser Ser Pro Tyr Glu Thr Leu Gly Tyr Ser Ile Leu Glu Thr Ile Ala		160
	165	170
Gln Gly Asn Lys Ala Leu Val Tyr Tyr Gly Asp Asp Asn Val Leu Lys		175
	180	185
Asp Ile Tyr Ala Pro Tyr Glu Ala Ile Arg Phe Leu Thr Lys Asp Met		190
	195	200
Ile Lys Asp Ser Lys Ile Ile Lys Asp Phe Leu Asn Tyr Lys Tyr Ser		205
	210	215
His Phe Asp Arg Gln Lys Tyr Tyr Arg Gln Leu Glu Ser Thr Phe Lys		220
225	230	235
Cys Ile Asn Tyr Gly Gln Glu Phe Leu Asn Asn Val Glu Thr Phe Ser		240
	245	250
Ser Ser Gln His Val Lys Val Lys Lys Ile His Arg His Leu Gly Ser		255
	260	265
Glu Lys Gln Ile Asp Ile Ala Ser Arg Leu Lys Glu Ser Arg Trp Met		270
	275	280
Asn Leu Ile Arg Lys Asn Lys Tyr Leu Phe Asn Lys Cys Lys Thr Tyr		285
	290	295
Tyr Glu Lys Arg Thr His Met Ser Tyr Ile Lys Asn Leu Asn Gln Ile		300
305	310	315
Pro Val Asp Asp Asp Ser Ile Phe Ile Glu Ser Phe His Gly Lys Asn		320
	325	330
Phe Ser Gly Asp Pro Lys Tyr Ile Ala Leu Ala Ile Lys Arg Gln Tyr		335
	340	345
Asp His Lys Lys Ile Tyr Val Ser Ser Thr Asn Ser Leu Val Asp Met		350
	355	360
Glu Ile Lys Arg Tyr Gly Phe Thr Pro Val Arg Phe Gly Ser Glu Lys		365
	370	375
Tyr Ile Lys Thr Phe Arg Lys Cys Lys Tyr Val Phe Ile Asn Gly Asn		380
385	390	395
Ser Trp Asp Lys Val Tyr Lys Ser Ser Asp Gln Ile Phe Val Gln Thr		400
	405	410
Trp His Gly Phe Pro Leu Lys Lys Met Val Asn Asp Leu Asn Glu Gln		415
	420	425
His Glu Arg Gln Gln Gln Leu Glu Ala Phe Ile Pro Arg Met Lys Lys		430
	435	440
Trp Asp Tyr Ile Leu Thr Ser Ser Asp Ile Asn Thr Leu Leu Glu		445
	450	455
Ser Ala Phe Met Leu Asn Lys Asn Pro Asn Leu Lys Val Leu Glu Tyr		460
465	470	475
Gly Ala Pro Lys Asn Glu Tyr Leu Ile Asn Asn Asn Asn Leu Gln Glu		480
	485	490
Arg Gln Gln Leu Gln Leu Lys Tyr Met Tyr Lys Ile Asp Asp Asp Lys		495

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<210> 4697
<211> 46
<212> PRT
<213> S.epidermidis
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<210> 4698
<211> 626
<212> PRT
<213> S.epidermidis
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<400> 4698																
Tyr	Thr	Leu	Tyr	Ile	Ala	Lys	Gly	Asp	Glu	Met	Thr	Thr	Leu	Glu	Thr	
1				5					10					15		
Ser	Leu	Thr	Arg	Leu	Ile	Thr	Lys	Asp	Pro	Thr	Ile	Leu	Asn	Glu	Asn	
			20					25					30			
Ala	Asn	Lys	Asp	Ser	Asn	Thr	Phe	Ser	Thr	Met	Arg	Asp	Leu	Thr	Ala	
		35					40					45				
Gly	Thr	Val	Ser	Lys	Ser	Tyr	Ala	Leu	Asp	His	Leu	Leu	Pro	Lys	His	
	50					55					60					
Val	Ala	His	Ala	His	Gln	Ser	Gly	Asp	Ile	His	Phe	His	Asp	Leu	Asp	
65					70					75					80	
Tyr	His	Pro	Phe	Gln	Pro	Leu	Thr	Asn	Cys	Cys	Leu	Ile	Asp	Ala	Lys	

				85					90					95			
Asp	Met	Leu	Glu	Asn	Gly	Phe	Glu	Ile	Gly	Asn	Ala	Asn	Val	Thr	Thr		
			100					105					110				
Leu	Gln	Ser	Ile	Gln	Thr	Ala	Ser	Ala	Gln	Leu	Val	Gln	Ile	Ile	Ala		
		115						120				125					
Asn	Val	Ser	Ser	Ser	Gln	Tyr	Gly	Gly	Cys	Thr	Val	Asp	Arg	Val	Asp		
	130					135					140						
Glu	Leu	Leu	Ser	Lys	Tyr	Ala	Gln	Met	Asn	Ala	Gln	His	His	Arg	Glu		
145					150					155					160		
Val	Ala	Asn	Asp	Phe	Val	Gln	Pro	Asp	Lys	Ile	Glu	Asn	Tyr	Val	Asp		
			165					170						175			
Thr	Gln	Val	Thr	Lys	Asp	Ile	Gly	Asp	Ala	Ile	Glu	Ser	Leu	Glu	Tyr		
		180						185					190				
Glu	Ile	Asn	Thr	Leu	Tyr	Thr	Ser	Asn	Gly	Gln	Thr	Pro	Phe	Val	Thr		
	195						200					205					
Leu	Gly	Phe	Gly	Leu	Gly	Thr	Asp	Gln	Leu	Ser	Arg	Lys	Ile	Gln	Gln		
	210					215					220						
Ala	Ile	Leu	His	Thr	Arg	Ile	Lys	Gly	Leu	Gly	Lys	Asp	Arg	Val	Thr		
225					230					235					240		
Ala	Ile	Phe	Pro	Lys	Leu	Val	Phe	Ser	Ile	Lys	Lys	Gly	Ile	Asn	Phe		
				245					250					255			
Gly	Pro	Glu	Asp	Pro	Asn	Tyr	Asp	Ile	Lys	Gln	Leu	Ala	Leu	Glu	Cys		
		260					265						270				
Ser	Thr	Lys	Arg	Met	Tyr	Pro	Asp	Ile	Leu	Asn	Tyr	Asp	Lys	Leu	Val		
	275						280					285					
Glu	Leu	Leu	Gly	Asp	Phe	Lys	Ala	Pro	Met	Gly	Cys	Arg	Ser	Phe	Leu		
	290					295					300						
Pro	Ser	Trp	Lys	Asn	Asp	Glu	Gly	Gln	Leu	Glu	Asn	Asn	Gly	Arg	Cys		
305				310						315					320		
Asn	Leu	Gly	Val	Val	Thr	Leu	Asn	Val	Pro	Arg	Ile	Ala	Ile	Glu	Ala		
			325					330						335			
Asp	Gly	Asn	Met	Gln	Gln	Phe	Trp	Asp	Ile	Phe	Glu	Lys	Arg	Met	Gln		
		340						345					350				
Leu	Leu	His	Asp	Ala	Leu	Val	Tyr	Arg	Ile	Glu	Arg	Leu	Gln	Asp	Ala		
	355						360					365					
Ile	Pro	Asp	Asn	Ala	Pro	Ile	Leu	Tyr	Lys	Ser	Gly	Ala	Phe	Lys	Asn		
	370					375					380						
Lys	Leu	Thr	Ser	Glu	Asp	Thr	Val	Asp	Ser	Leu	Phe	Thr	Lys	Gln	Arg		
385				390						395				400			
Ala	Thr	Ile	Ser	Met	Gly	Tyr	Ile	Gly	Leu	Tyr	Glu	Ala	Ala	Thr	Leu		
			405					410					415				
Phe	Tyr	Gly	Pro	Asn	Trp	Glu	His	Asn	Pro	Glu	Ala	Lys	Thr	Phe	Thr		
		420						425					430				
Leu	Asp	Ile	Leu	Arg	Glu	Met	Lys	Arg	Tyr	Gln	Val	Glu	Trp	Thr	Lys		
	435						440					445					
Gln	Tyr	Asp	Ile	Trp	Phe	Ser	Ile	Tyr	Ser	Thr	Pro	Ser	Glu	Ser	Leu		
	450					455					460						
Thr	Asp	Arg	Phe	Cys	Arg	Leu	Asp	Lys	Glu	Lys	Phe	Gly	Ser	Ile	Pro		
465				470					475						480		
Asp	Val	Thr	Asp	Lys	Gly	Tyr	Tyr	Gln	Asn	Ser	Phe	His	Tyr	Asp	Val		
			485					490					495				
Arg	Lys	Asp	Val	Thr	Pro	Phe	Glu	Lys	Leu	Asp	Phe	Glu	Lys	Asp	Tyr		
		500						505				510					
Pro	Tyr	Tyr	Ala	Ser	Gly	Gly	Phe	Ile	His	Tyr	Cys	Glu	Tyr	Pro	Lys		
	515					520					525						
Leu	Asn	His	Asn	Leu	Lys	Ala	Leu	Glu	Ala	Val	Trp	Asp	Tyr	Ala	Tyr		

530 535 540
 Asp Lys Val Gly Tyr Leu Gly Thr Asn Ile Pro Ile Asp His Cys Tyr
 545 550 555 560
 Arg Cys Gly Tyr Asp Gly Asp Phe Glu Thr Thr Ala Asn Gly Tyr Arg
 565 570 575
 Cys Pro His Cys Gly Asn Thr Asp Pro Lys Thr Val Asp Val Val Lys
 580 585 590
 Arg Thr Cys Gly Tyr Leu Gly Asn Pro Val Gln Arg Pro Val Ile Glu
 595 600 605
 Gly Arg Gln Lys Glu Ile Cys Ala Arg Val Lys His Met Lys Ala Leu
 610 615 620
 Arg Ser
 625

<210> 4699

<211> 560

<212> PRT

<213> S.epidermidis

<400> 4699

Tyr Asn Val Tyr Phe Asn Phe Asn Lys Glu Glu Phe Val Asn Met Lys
 1 5 10 15
 Asn Asn Trp Ile Asp Val Leu Asp Glu Ser Leu Val Lys Asp Phe Tyr
 20 25 30
 Asn Asn Gln Thr Ser Glu Glu Gln Gln Glu Gly Leu Asn Thr Thr Leu
 35 40 45
 Ser Phe Gly Thr Ala Gly Ile Arg Gly Lys Phe Gly Leu Gly Glu Gly
 50 55 60
 Arg Leu Asn Lys Phe Thr Val Ser Lys Val Ala Leu Gly Phe Ala His
 65 70 75 80
 Tyr Leu Thr Ser Ser Ile Ala His Pro Val Val Val Ile His Tyr Asp
 85 90 95
 Thr Arg His Leu Ser Pro Glu Phe Ala Gln Ile Ile Ala Asn Ile Leu
 100 105 110
 Ala Ser Leu Asp Ile Lys Val Tyr Leu Ala Asp Thr Tyr Arg Thr Thr
 115 120 125
 Pro Asp Leu Ser Phe Ala Val Arg Tyr Leu Gln Ala Asp Ala Gly Val
 130 135 140
 Met Ile Thr Ala Ser His Asn Pro Lys Asp Tyr Asn Gly Ile Lys Val
 145 150 155 160
 Tyr Gly Glu Asp Gly Ala Gln Leu Ser Thr Asp Asp Ser Ala Arg Leu
 165 170 175
 Ser Thr Tyr Ile Asp Lys Leu Gly His Pro Leu His Ile Asn Leu Pro
 180 185 190
 Ser Leu Thr Thr Glu Gln Gln Ser Leu Ile His Ser Val Pro Ser Glu
 195 200 205
 Val Arg Glu Asp Tyr Phe Lys Asn Val Gln Asp Leu Val Gly Thr Ile
 210 215 220
 Pro Gln Ser Asp Leu Lys Val Val Phe Thr Ser Leu His Gly Thr Ser
 225 230 235 240
 Val Pro Val Val Pro Asp Ile Leu Ser Ser Leu Asn Phe Asn Gln Phe
 245 250 255
 Glu Leu Val Ala Ser Gln Cys Glu Pro Asp Ser Asp Phe Ser Ser Val
 260 265 270
 Ala Ser Ala Asn Pro Glu Asp His Lys Ala Phe Asp Gln Ser Ile Glu
 275 280 285

Met Ser Ala Lys Glu Ala Ala Leu Ala Ile Lys Asp Gly Phe Gln Glu
 20 25 30
 Val Phe Asp Ser Ser Thr Ile Tyr Asp Ile Ile Pro Met Ala Asp Gly
 35 40 45
 Gly Glu Gly Thr Thr Glu Val Leu Lys Glu Ala Leu Asn Ala Thr Ser
 50 55 60
 Tyr Cys Val Glu Val Lys Asp Pro Leu Asn Arg Asn Ile Met Ala Ser
 65 70 75 80
 Tyr Ala Arg Ser Asp Glu His Gln Thr Ala Ile Ile Glu Met Ala Ala
 85 90 95
 Ala Ser Gly Leu Ala Leu Leu Ser Lys Asp Glu Arg Asp Pro Ser Ile
 100 105 110
 Thr Thr Ser Tyr Gly Thr Gly Gln Leu Ile Asn Asp Ala Leu Asn His
 115 120 125
 Asp Val Asn Lys Ile Ile Leu Gly Ile Gly Gly Ser Ala Thr Asn Asp
 130 135 140
 Gly Gly Val Gly Met Leu Lys Ala Leu Gly Val Ser Phe Lys Asp Lys
 145 150 155 160
 Asn Asn Gln Glu Ile Arg Asp Gly Gly Leu Ala Leu Ser Gln Ile Glu
 165 170 175
 Tyr Ile Asp Ile Thr Arg Ile Asn Pro Arg Leu Lys Asp Val Asn Ile
 180 185 190
 Lys Val Ala Cys Asp Val Thr Asn Pro Leu Leu Gly Asp Asn Gly Ala
 195 200 205
 Thr Ile Val Tyr Gly Pro Gln Lys Gly Ala Gln Gln Lys Met Ile Pro
 210 215 220
 Lys Leu Asp Ser Ala Leu Arg His Tyr His Asp Lys Ile Glu Arg Glu
 225 230 235 240
 Leu Asn Met Asn Val Lys Asp Ile Pro Gly Ala Gly Ala Ala Gly Gly
 245 250 255
 Met Gly Thr Ala Leu Ile Ala Phe Leu Asn Ala Glu Leu Arg Pro Gly
 260 265 270
 Ile Asp Val Val Leu Glu Glu Thr Gln Phe Lys Gln Arg Ile Lys Asp
 275 280 285
 Ala Asn Leu Val Val Thr Gly Glu Gly Lys Met Asp Lys Gln Thr Ile
 290 295 300
 Tyr Gly Lys Thr Pro Ile Gly Val Ala Lys Val Ala Lys Ser Tyr Asp
 305 310 315 320
 Ile Pro Val Ile Ala Ile Cys Gly Ser Leu Gly Lys Asp Tyr Glu Val
 325 330 335
 Ile Tyr His His Gly Ile Asp Ser Val Phe Ser Ile Met Glu Arg Pro
 340 345 350
 Cys His Leu Asp Glu Ala Leu Lys Glu Gly Ala Leu His Val Lys His
 355 360 365
 Thr Thr Thr Asn Phe Ala Arg Leu Leu Gln Leu Lys Ile Glu Asn
 370 375 380

<210> 4702

<211> 266

<212> PRT

<213> S.epidermidis

<400> 4702

Tyr Trp Thr Tyr His Phe Lys Glu Lys Gly Lys Met Val Ile Met Asp
 1 5 10 15
 Asp Leu Lys Gln Asn Gln Ser Ser Asn Glu Lys Pro Lys Gly Asn Lys


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      20      25      30
Ile Ile Asn Ile Leu Ile Phe Ile Gly Met Ile Leu Leu Ile Gln Ile
      35      40      45
Pro Ile Gly Val Ser Leu Ile Ala Leu Pro Phe Ser Val Lys Phe Ser
      50      55      60
Lys Leu Thr Ser Ile Ala Leu Ser Met Leu Ile Thr Gly Thr Ala Leu
      65      70      75      80
Leu Ile Ile Trp Leu Val Arg Asn Tyr Tyr Leu Ser His Thr Tyr Glu
      85      90      95
Arg Gln Tyr Gln Ser Met Arg Gly Lys Asp Ile Phe Ile Asn Ile Gly
      100      105      110
Phe Leu Val Leu Ser Met Val Phe Ser Ile Leu Ser Ser Val Leu Met
      115      120      125
Val Ile Phe Thr Gly Asn Asp Thr Thr Ala Asn Glu Lys Glu Ile Asn
      130      135      140
Glu Ser Leu Asp Leu Leu Leu Gln Lys Asp His Leu Pro His Ile Ser
      145      150      155      160
Ile Val Ala Thr Val Val Leu Met Ile Cys Ile Ile Gly Pro Tyr Leu
      165      170      175
Glu Glu Leu Leu Phe Arg Gly Ile Phe Lys Glu Thr Leu Phe Met Lys
      180      185      190
Tyr Arg Phe Trp Leu Pro Phe Ile Ile Ser Ser Ile Ile Phe Ser Ser
      195      200      205
Gln His Leu Ser Thr Asn Ile Phe Ser Tyr Ala Ile Tyr Phe Leu Met
      210      215      220
Gly Cys Val Leu Tyr Leu Ala Tyr Asn Arg Arg Arg Asn Ile Lys Asp
      225      230      235      240
Ser Met Met Val His Met Leu Asn Asn Ser Val Ser Thr Leu Pro Val
      245      250      255
Phe Val Gly Tyr Leu Trp Ile Tyr Phe Arg
      260      265

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<210> 4703
 <211> 42
 <212> PRT
 <213> S.epidermidis

<400> 4703
 His Phe Gln Tyr Leu Asn Asn Ile Thr Glu Asn Phe Met Thr Phe His
 1 5 10 15
 Gln Ser Val Met Ile Tyr Ser Asn Phe Phe Thr Phe Leu Trp Leu Gly
 20 25 30
 Ile Arg Ser Arg Phe Ile Ser Leu Leu Ile
 35 40

<210> 4704
 <211> 336
 <212> PRT
 <213> S.epidermidis

<400> 4704
 Phe Gln Lys Tyr Thr Tyr Tyr Thr Asn Ile Asp Met Lys Gly Thr Val
 1 5 10 15
 Ser Arg Met Lys Asn Leu Lys Phe Leu Val Val Leu Val Leu Ser Val
 20 25 30
 Val Ile Phe Ala Ala Ala Cys Gly Asn Ser Ser Ser Leu Asp Asn Asn

```

      35              40              45
Lys Ser Ser Asp Ser Gly Ser Asp Ser Lys Ser Gly Ser Tyr Thr Pro
  50              55              60
Lys Glu Leu Thr Val Gln Phe Val Pro Ser Gln Asn Ala Asp Thr Leu
  65              70              75              80
Glu Ala Lys Ala Lys Pro Leu Glu Lys Leu Leu Ser Asp Lys Leu Gly
      85              90              95
Ile Pro Val Lys Val Ser Val Ser Thr Asn Tyr Asn Thr Ile Val Glu
      100              105              110
Ala Met Lys Ser Lys Lys Val Asp Val Gly Phe Leu Pro Pro Thr Ala
      115              120              125
Tyr Thr Leu Ala His Asp Gln Lys Ala Ala Asp Leu Leu Lys Ala
      130              135              140
Glu Arg Tyr Asp Val Asn Glu Asp Gly Ser Pro Ser Lys Lys Leu Val
      145              150              155              160
Asp Asp Tyr Lys Ser Glu Ile Leu Val Lys Lys Asp Ser Gly Ile Asn
      165              170              175
Asn Leu Lys Asp Leu Lys Gly Lys Lys Ile Ala Leu Gln Asp Val Thr
      180              185              190
Ser Thr Ala Gly Tyr Thr Phe Pro Leu Val Thr Leu Lys Lys Glu Ala
      195              200              205
Gly Ile Asp Ala Thr Lys Asp Met Lys Ile Val Asn Val Lys Gly His
      210              215              220
Asp Gln Ala Val Ile Ser Leu Leu Asn Gly Asp Val Asp Ala Ala Ala
      225              230              235              240
Val Phe Asn Asp Ala Arg Thr Val Val Lys Lys Asp Gln Pro Asn Val
      245              250              255
Phe Lys Asp Thr Lys Ile Leu Lys Leu Thr Lys Pro Ile Pro Asn Asp
      260              265              270
Thr Ile Ser Val Arg Pro Asp Met Asp Lys Lys Phe Gln Asp Lys Leu
      275              280              285
Lys Lys Ala Phe Lys Glu Ile Ser Lys Thr Lys Lys Gly His Lys Ile
      290              295              300
Ile Ser Glu Val Tyr Ser His Glu Gly Tyr Val Asp Thr Lys Asp Ser
      305              310              315              320
Asp Phe Asp Ile Val Arg Gln Tyr Glu Lys Ala Val His Asp Met Lys
      325              330              335

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<210> 4705

<211> 444

<212> PRT

<213> S.epidermidis

<400> 4705

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Asn Met Lys Tyr Cys Ser Asn Cys Gly Gln Pro Leu Arg Glu Gly Val
  1              5              10              15
Lys Val Cys Thr Asn Cys Gly Thr Pro Val Arg Asn Asp Gly Pro Asn
      20              25              30
Tyr Lys His Ser Glu Gln Arg Tyr Ser His Gln Gln Pro Arg Ser Asn
      35              40              45
Lys Ser Asn Lys Lys Thr Trp Leu Ile Val Thr Ile Val Leu Ala Ile
      50              55              60
Ile Ile Ala Leu Val Val Ile Phe Thr Ile Ala Lys Asn Gln Met Ser
      65              70              75              80
Pro Glu Lys Gln Ala Thr His Ile Ala His Ala Ile Lys Lys Asp Asp
      85              90              95

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Ala Lys Ser Leu Ser Lys Gln Leu Thr Ser Asn Asp His Arg Leu Asn
 100 105 110
 Glu Glu Glu Ala Arg Ala Tyr Leu Lys Tyr Ile Lys Ala Glu Ser Asp
 115 120 125
 Leu Lys His Val Ala Asp Lys Val Glu Glu Asn Thr Lys Asp Ile Lys
 130 135 140
 Asn Asn His Tyr Asn Asn Leu Ser Val Asp Ala Asn Asp Asn Asn Ile
 145 150 155 160
 Leu Asn Ile Ser Lys Asp Gly Lys Lys Tyr Val Phe Phe Asp Asn Tyr
 165 170 175
 Gln Phe Asn Val Pro Gln Lys Thr Ile Thr Ile Val Ser Ser Asp Ser
 180 185 190
 Gly Glu Ile Thr Tyr Glu Phe Asn Gly Asp Lys His His Ile Ser Val
 195 200 205
 Glu Glu Asp Asp Asp Lys Glu Leu Gly Thr Phe Pro Ile Gly Asp Tyr
 210 215 220
 Asn Leu Lys Ala Ser Lys Asp Met Glu Gly Lys Asn Phe Lys Gly Ala
 225 230 235 240
 Ile Thr Ile Asp Met Ser Glu Ser Asp Ser Ile Ala Tyr Glu Ser Phe
 245 250 255
 Lys Gln Lys Arg Phe Asn Val Asp Thr Glu Gly Gly Tyr Ile Leu Asp
 260 265 270
 Asn Val Lys Ile Tyr Ala Asn Gly Lys Glu Ile Gly Asp Gly Phe Ser
 275 280 285
 Ser Glu Thr Tyr Gly Pro Tyr Asp Pro Asp Glu Glu Val Ile Val His
 290 295 300
 Ala Glu Gly Ser Tyr Glu Gly Lys Thr Phe Lys Ser Asn Ser Val Asn
 305 310 315 320
 Val Ala Ser Ala Ser Glu Lys Asp Gly Gly Val Thr Asp Val Thr Val
 325 330 335
 Lys Phe Asp Glu Glu Ala Ile Asp Gln Tyr Val Asp Lys Lys Leu Asp
 340 345 350
 Glu Lys Tyr Asp Asp Ser Asp Asp Glu Ser Asp Asn Asp Ser Ser Ser
 355 360 365
 Gly Glu Val Thr Arg Glu Asn Val Ile Asp Lys Val Glu Ser Tyr Glu
 370 375 380
 Gly His Thr Leu Asp Thr Asp Thr Tyr Thr Tyr Lys Glu Pro Glu Lys
 385 390 395 400
 Thr Gly Asp Gly Lys Trp Gly Phe Ser Phe Leu Asp Lys Asp Gly Asp
 405 410 415
 Leu Ala Gly Ser Tyr Thr Val Asp Ile Asp Asp Gly Tyr Val Thr Glu
 420 425 430
 Tyr Asp Glu Asp Gly Glu Glu Val Gly Ser Gly Tyr
 435 440

<210> 4706

<211> 514

<212> PRT

<213> S.epidermidis

<400> 4706

Asn Met Lys Tyr Met Ile Gly Val Asp Met Gly Thr Thr Ser Thr Lys
 1 5 10 15
 Ala Val Leu Tyr Asp Glu Asn Gly Lys Phe Ile Met Lys His Asn Ile
 20 25 30
 Gly Tyr Asp Leu His Thr Pro Asn Val Asp Val Ser Glu Glu Asn Pro

		35					40					45				
Asp	Glu	Ile	Phe	Asp	Ala	Val	Leu	Met	Thr	Val	Lys	Tyr	Ile	Val	Arg	
	50					55					60					
Glu	Ser	Gly	Ile	Ala	Lys	Glu	Asp	Ile	Lys	Phe	Ile	Ser	Leu	Ser	Ala	
65					70					75					80	
Gln	Met	His	Ser	Leu	Ile	Ala	Met	Asn	Glu	Asp	Asn	Gln	Arg	Leu	Thr	
				85					90					95		
Glu	Asn	Ile	Thr	Trp	Ala	Asp	Asn	Arg	Ala	Asn	Asp	Tyr	Ala	Asp	Leu	
			100					105					110			
Ile	Glu	Lys	Ser	Tyr	Gly	Gly	Phe	Glu	Leu	Tyr	Gln	Arg	Thr	Gly	Thr	
		115					120					125				
Pro	Ile	His	Pro	Met	Ser	Pro	Leu	Ser	Lys	Ile	Phe	Trp	Met	Arg	His	
		130				135					140					
Glu	Glu	Pro	Lys	Ile	Phe	Lys	Gln	Thr	Ala	Met	Phe	Ala	Asp	Leu	Lys	
145					150					155					160	
Thr	Tyr	Val	Leu	Phe	Gln	Leu	Tyr	Glu	Arg	Phe	Val	Ile	Asp	Tyr	Ser	
				165					170					175		
Leu	Gly	Ser	Ala	Thr	Gly	Met	Met	Asn	Leu	Glu	Gln	Leu	Asp	Trp	Asp	
			180					185					190			
Asn	Lys	Ala	Leu	Glu	Leu	Leu	Gly	Ile	Glu	Arg	Asn	Gln	Leu	Pro	Gln	
		195					200					205				
Leu	Val	Pro	Thr	Thr	His	Val	Leu	Thr	Gly	Met	Lys	Lys	Arg	Tyr	Ala	
	210					215					220					
Thr	Leu	Met	Gly	Ile	Asp	Glu	Gln	Thr	Pro	Val	Ile	Val	Gly	Ala	Ser	
225					230					235					240	
Asp	Gly	Val	Leu	Ser	Asn	Leu	Gly	Val	Asn	Ser	Tyr	Gln	Lys	Gly	Glu	
				245					250					255		
Val	Ala	Val	Thr	Ile	Gly	Thr	Ser	Gly	Ala	Ile	Arg	Thr	Val	Ile	Asn	
			260					265					270			
Gln	Pro	Lys	Thr	Asp	Glu	Lys	Gly	Arg	Ile	Phe	Cys	Tyr	Ile	Leu	Asp	
		275					280					285				
Lys	Asp	Gln	Tyr	Val	Ile	Gly	Gly	Pro	Val	Asn	Asn	Gly	Gly	Val	Val	
	290					295					300					
Leu	Arg	Trp	Leu	Arg	Asp	Glu	Ile	Leu	Ala	Ser	Glu	Val	Glu	Thr	Ala	
305					310					315					320	
Lys	Arg	Leu	Gly	Val	Asp	Pro	Tyr	Asp	Val	Leu	Thr	Gln	Ile	Ala	Ser	
				325					330					335		
Arg	Val	Lys	Pro	Gly	Ala	Glu	Gly	Leu	Ile	Phe	His	Pro	Tyr	Leu	Ala	
			340					345					350			
Gly	Glu	Arg	Ala	Pro	Leu	Trp	Asn	Ala	Asp	Ala	Arg	Gly	Ser	Phe	Phe	
		355					360					365				
Gly	Leu	Thr	Leu	Ser	His	Lys	Lys	Glu	His	Met	Ile	Arg	Ala	Ala	Leu	
	370					375					380					
Glu	Gly	Val	Leu	Tyr	Asn	Leu	Tyr	Thr	Val	Tyr	Leu	Ala	Leu	Ile	Glu	
385					390											

1805

Met Thr Glu Asn Tyr Ser Asp Ile Ala Asn Phe Gln Arg Glu His Leu
 500 485 490 495
 Ser Asp 510

<210> 4707
 <211> 46
 <212> PRT
 <213> S.epidermidis

<400> 4707
 Gly Phe Glu Tyr Ile Val Ile Tyr Thr Tyr Phe Tyr Leu Leu Ile Leu
 1 5 10 15
 Lys Asn Glu Phe Ser Leu Ile Ile Tyr Gln Leu Lys Lys Arg Tyr Glu
 20 25 30
 Ile Tyr Phe Val Leu Asn Phe Ser Leu Pro Tyr Gln Arg Ile
 35 40 45

<210> 4708
 <211> 212
 <212> PRT
 <213> S.epidermidis

<400> 4708
 Arg Arg Glu Tyr Val Leu Ile Val Leu Gly Lys Gly Glu Thr Met Lys
 1 5 10 15
 Lys Leu Ile Gly Leu Leu Met Ile Leu Cys Met Val Leu Leu Tyr Ser
 20 25 30
 Cys Ser Gly Pro Met Asp Ser Pro Lys His Ser Asn Asn Ser Lys Pro
 35 40 45
 Val Val Val Ile Tyr Gly Asp Tyr Lys Cys Pro Tyr Cys Lys Lys Thr
 50 55 60
 Glu Asp Arg Val Met Pro Lys Leu Lys Lys Lys Tyr Ile Asp Thr Asn
 65 70 75 80
 Lys Ile Lys Tyr Gln Tyr Val Asn Leu Ala Phe Leu Gly Lys Asp Ser
 85 90 95
 Ile Val Gly Ser Arg Ala Gln His Ala Val Asn His Tyr Ala Pro Lys
 100 105 110
 Lys Ser Leu Glu Phe Gln Lys Leu Met Phe Asn Gln Gln Lys Asp Glu
 115 120 125
 His Lys Gln Trp Ile Thr Thr Arg Leu Val Asp Lys Gln Ile Asp Lys
 130 135 140
 Leu Ser Ile Ser Asp Asp Lys Lys Lys Lys Ile Lys Thr Asp Tyr Lys
 145 150 155 160
 Thr Lys Gly Ser Ile Ser Trp Lys Lys Ala Lys Glu Asp Gln Gln Ile
 165 170 175
 Ala Lys Lys Asn His Ile Lys Gln Thr Pro Thr Ala Phe Val Asn Asp
 180 185 190
 Asn Lys Val Glu Asp Pro Tyr Asp Phe Ser Ser Tyr Glu Met Leu Leu
 195 200 205
 Glu Asn Glu Lys
 210

<210> 4709
 <211> 518

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<212> PRT

<213> S.epidermidis

<400> 4709

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Gly Arg Arg Tyr Gly His Ser Phe Pro Ile Asn Lys Glu Val Leu Asp
1      5      10      15
Met Thr Ile Tyr Asn Ile Asn Phe Gly Ile Gly Trp Ala Ser Ser Gly
20      25      30
Val Glu Tyr Ala Gln Val Tyr Arg Ala Lys Leu Leu Arg Gln Leu Pro
35      40      45
Tyr Pro Thr Lys Phe Ile Phe Leu Asp Phe Ile Gln Ser Glu Asn Ile
50      55      60
Gln Thr Leu Thr Ser Asn Ile Gly Phe Lys Asp Asp Glu Val Ile Trp
65      70      75      80
Leu Tyr Gln Tyr Phe Thr Asp Val Lys Ile Ala Pro Thr Thr Tyr Thr
85      90      95
Val Asp Asp Leu Ile Ser Glu Leu Gly Asn Glu Val Thr Arg Lys Glu
100     105     110
Gln Asn Gly Lys Val Leu Arg Leu Tyr Leu Asn Asn Gln Gln Thr Phe
115     120     125
Val Thr Cys Tyr Leu Lys Asn Ala Asn Glu His Tyr Val Asp Arg Ala
130     135     140
Glu Phe Val Val Asn Gly Met Leu Ile Arg Lys Asp Phe Tyr Ser Tyr
145     150     155     160
Val Arg Thr Phe Ser Glu Tyr Tyr Ala Pro Phe Asp Asn Lys Ala Lys
165     170     175
Ile Tyr Met Arg Gln Phe Tyr Asn Glu Asn Gly Ser Ile Ala Tyr Arg
180     185     190
Glu Tyr Ile Asp Glu Asp Glu His Val Phe Val Phe Asp Asp Ala Arg
195     200     205
Leu Tyr Ser Lys Gln Ala Leu Val Ala Tyr Phe Ile Arg Gln Leu Arg
210     215     220
Leu Asn Ser Glu Asp Ile Ile Ile Ile Asp Arg Ala Thr Asp Val Gly
225     230     235     240
Gln Ala Ile Leu Glu Asn Lys Gly Ser Ser Lys Val Gly Val Val Val
245     250     255
His Ala Glu His Phe Ser Glu Gly Ala Thr Asp Gly Thr His Ile Leu
260     265     270
Trp Asn Asn Tyr Tyr Glu Tyr Gln Phe Glu Asn Ala Gln His Ile Asp
275     280     285
Phe Phe Ile Thr Ala Thr Asp Leu Gln Arg Gln Thr Leu Ser Glu Gln
290     295     300
Phe Lys Gln Tyr Lys Asn Asp Cys Pro Arg Ile Arg Thr Ile Pro Val
305     310     315     320
Gly Ser Ile Glu Ser Leu Gln Tyr Pro Glu Lys Glu Arg Lys Pro Tyr
325     330     335
Ser Ile Met Thr Ala Ser Arg Leu Ala Asn Glu Lys His Val Asp Trp
340     345     350
Ile Val Glu Ala Val Ile Lys Ala Lys His Gln Leu Pro Gln Leu Ser
355     360     365
Phe Asp Ile Tyr Gly Gln Gly Glu Glu Gln Glu Lys Ile Lys Asn Ile
370     375     380
Ile Thr Lys His Arg Ala Glu Asp Tyr Ile Gln Ile Lys Gly His Arg
385     390     395     400
Asn Leu Arg Thr Ile Tyr Gln Gln Tyr Glu Leu Phe Ile Ala Ala Ser
405     410     415

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275	280	285
Val Asp Met Gln Asn Ser Ala Leu Asn Lys Leu Ser Lys Asn Asn Lys		
290	295	300
Gly Phe Phe Leu Met Val Glu Gly Ala Ser Ile Asp Lys Ala Ala His		
305	310	315
Pro Asn Asp Ile Thr Gly Val Met Ser Glu Met Ser Gly Phe Glu Thr		
325	330	335
Ala Phe Asp Asn Ala Ile Asn Tyr Ala Lys Thr His Lys Asp Thr Leu		
340	345	350
Val Val Ala Thr Ala Asp His Ser Thr Gly Gly Leu Ser Thr Ala Lys		
355	360	365
Gly Lys Asp Tyr Lys Trp Asn Pro Glu Ala Ile His Lys Met Lys His		
370	375	380
Ser Gly Met Tyr Met Thr Lys Gln Ile Ala Asp Gly Lys Asp Pro Glu		
385	390	395
Lys Val Ile Lys Asp Gly Tyr Gly Ile Asp Phe Pro Asn Lys Gln Leu		
405	410	415
Asp Lys Val Lys Lys Ala Ala Asp Glu Leu His Lys Leu Gln Lys Glu		
420	425	430
Gly Lys Asp Asp Lys Asp Glu Lys Val Val Glu Gln Thr Thr Lys Leu		
435	440	445
Gln Asn Ala Ile Gln Lys Pro Ile Asn Asp Ala Ser His Thr Gly Trp		
450	455	460
Thr Thr Asn Gly His Thr Gly Val Asp Val Asn Thr Tyr Ala Tyr Gly		
465	470	475
Pro Gly Ser Asn Lys Phe Lys Gly Asn Met Glu Asn Thr Gln Ser Ala		
485	490	495
Lys Asn Leu Phe Asp Phe Phe Gly Asp Asn Val Thr Ser Asn Gln Asn		
500	505	510

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<212> PRT

<213> S.epidermidis

<400> 4711

Asn Val Thr Tyr Gly Tyr Pro Lys Lys Trp Lys Glu Asn Met Thr Ser	
1	5
Gly Gln Val Ile Ala Ala Glu Leu Arg Leu Gly Ile Val Ser Gly Glu	
20	25
Ile Glu Ser His Ile Gln Leu Ser Glu Asn Gln Val Ala Gln Gln Phe	
35	40
Asn Val Ser Arg Ser Pro Val Arg Asp Ala Phe Lys Leu Leu Gln Thr	
50	55
Asp Gln Leu Ile Gln Leu Glu Arg Met Gly Ala Gln Val Leu Pro Phe	
65	70
Gly Asp Gln Glu Lys Lys Glu Met Tyr Asp Leu Arg Leu Met Leu Glu	
85	90
Ser Phe Ala Phe Ser Lys Leu Ser Gly Thr Asp Thr Gln His Ile Val	
100	105
Lys Glu Met Lys Lys Gln Leu Glu Met Met Lys Val Ala Val Gln Phe	
115	120
Glu Asp Ala Glu Ala Phe Thr Gln His Asp Phe Glu Phe His Glu Val	
130	135
Met Ile Gln Ala Thr Asn His Gln Tyr Leu Lys Val Phe Trp Asn His	
145	150
	155
	160

Leu Lys Pro Val Met Glu Ser Leu Ile Leu Ile Ser Met Arg Gln Arg
 165 170 175
 Met Thr Asn Asp Pro Lys Asp Phe Glu Arg Ile His Ser Asn His Gln
 180 185 190
 Val Phe Ile Asp Ala Val Glu Asn Asp Asp Ala Ser Ile Leu Arg Lys
 195 200 205
 Ala Phe His Leu Asn Phe Asp Asp Val Gly Glu Asn Ile Glu Ala Phe
 210 215 220
 Trp Leu Arg
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 <213> S.epidermidis

<400> 4712
 Leu Asp Lys Tyr Met Thr Thr Lys Ser Asn Phe Arg Leu Ser Leu Ala
 1 5 10 15
 Ser Leu Asp Met Ile Gln Val Ile Asn Tyr Leu Ile Ile Arg Val Lys
 20 25 30
 Lys Cys Leu Arg Asn Ser Asn Ile Lys Ser Tyr Ile Lys Glu Tyr Phe
 35 40 45
 Leu His Ala
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<210> 4713
 <211> 73
 <212> PRT
 <213> S.epidermidis

<400> 4713
 Tyr Lys Asp Leu Leu Arg His Ile Leu Asn Ser Ala Ile Asn Phe Gln
 1 5 10 15
 Tyr Thr Lys His Leu Arg Gln Ile Ser Met Ser Gln Ala Gln Leu Phe
 20 25 30
 Lys Tyr Lys His Leu Leu Glu Lys His Thr Ser Ile Tyr Val Leu Val
 35 40 45
 Ile Leu Ile Phe Lys Leu Trp Ser Glu Asn Tyr Trp Cys Thr Leu Met
 50 55 60
 Lys Phe Thr Cys Ile Cys Thr Ile His
 65 70

<210> 4714
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 <213> S.epidermidis

<400> 4714
 Phe Phe His Leu Asn Asn Thr Pro Phe Lys Asp Ala Val Leu Glu Gln
 1 5 10 15
 Thr Lys Cys Ser Ile Val Ser Tyr Tyr Tyr Thr Arg Phe Ile Val Val
 20 25 30
 Phe Lys Asn Leu Asn Phe Lys Leu Ser
 35 40

<210> 4720
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 <212> PRT
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<400> 4720
 Asn His Ile His Tyr Gln Glu Ala Pro Asn Leu Thr Lys Val Glu Tyr
 1 5 10 15
 Gly Asp His Tyr Glu Arg Arg Phe Met Lys Pro Lys Lys Leu Lys Ala
 20 25 30
 Asn Ile Glu Tyr Thr Thr Pro His Gly His Val Tyr Arg Thr Asp His
 35 40 45
 Lys Gly Arg Ile Lys Glu Val Tyr Ala Asp Asp Leu Ser Leu Leu Asp
 50 55 60
 Gly Gly Arg Asn Ser Tyr Ala Gln Arg Thr Val Gly Arg Glu Tyr Arg
 65 70 75 80
 Leu Pro Asp Asp Asp Gly Gly His Leu Ile Ala Arg Gly Phe Gly Gly
 85 90 95
 Ser Lys Asp Ile Asp Asn Leu Val Pro Gln Ser Lys Tyr Ile Asn Arg
 100 105 110
 Ser Phe Lys Glu Asn Gly Glu Trp Tyr Asn Met Lys Lys Glu Trp Gln
 115 120 125
 Lys Ala Ile Lys Lys Gly Glu Lys
 130 135

<210> 4721
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 <212> PRT
 <213> S.epidermidis

<400> 4721
 Ile Lys Ile His Asn His Tyr Ile Ala Val Gly Phe Gly Ile Glu Ala
 1 5 10 15
 Ile Ser Asn Ile Val Lys Thr Tyr Ser Tyr Ile Glu Ile Val Phe Asn
 20 25 30
 Ile Lys Asn Asn Tyr Leu Cys His Ser His Tyr Arg Leu Ile Tyr Lys
 35 40 45
 Ile Asn Leu Leu Phe Ser Phe Ile
 50 55

<210> 4722
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 <212> PRT
 <213> S.epidermidis

<400> 4722
 Leu Tyr Ser His Phe Ile Lys Ile Tyr Ile Lys Cys His Tyr Ser Tyr
 1 5 10 15
 Thr Thr Thr Leu Leu Phe Ile Tyr Glu Asn His His Ile Leu Tyr Arg
 20 25 30
 Ser Asn Asp Gly Phe Ile Gly Tyr Leu Ile Glu Ser Asn Ser His Phe
 35 40 45
 Asp Thr Ile Leu Lys Cys Leu Ile Phe Lys Leu Gln Ser Leu Ser Phe
 50 55 60
 Phe Tyr Ile Asn Ser Asn Thr Phe Lys Leu Thr Lys Ile Asp

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<210> 4723

<211> 40

<212> PRT

<213> S.epidermidis

<400> 4723

Gln	His	Pro	Gln	Leu	Cys	Lys	Ile	Ile	Phe	Gly	Asp	Leu	Gln	Asn	Ser
1				5					10					15	
Glu	Lys	Pro	Glu	His	Asp	His	Gly	His	Ala	Ala	Glu	His	His	Leu	Met
			20					25					30		
Thr	Glu	Glu	Leu	Thr	Ala	His	Leu								
			35				40								

<210> 4724

<211> 675

<212> PRT

<213> S.epidermidis

<400> 4724

Cys	Thr	Thr	His	Asn	Ile	Arg	Gly	Val	Val	Ile	Met	Thr	Gln	Ser	Tyr
1				5					10					15	
Cys	Ile	Leu	Gly	Asn	Pro	Asn	Val	Gly	Lys	Thr	Ser	Leu	Phe	Asn	Ala
			20					25					30		
Leu	Thr	Gly	Ser	Tyr	Glu	Tyr	Ile	Gly	Asn	Trp	Ser	Gly	Val	Thr	Val
		35					40					45			
Glu	Lys	Lys	Val	Gly	Lys	Leu	Lys	Asp	Asn	Val	Gly	Asp	Leu	Val	Asp
	50					55					60				
Leu	Pro	Gly	Ile	Tyr	Asp	Leu	Ser	Pro	Ile	Ser	Lys	Asp	Glu	Thr	Val
65					70					75				80	
Val	Thr	Asp	Tyr	Leu	Met	Ser	Thr	Ser	Phe	Thr	Gly	Met	Ile	Asn	Ile
				85					90					95	
Ile	Asp	Ala	Cys	Gln	Leu	Lys	Arg	Asn	Leu	Asn	Leu	Thr	Ile	Gln	Leu
			100					105					110		
Met	Glu	Leu	Asn	Lys	Pro	Met	Ile	Ile	Gly	Leu	Asn	Met	Ile	Asp	Val
			115					120				125			
Ala	Thr	Gln	Arg	Gly	Ile	Lys	Ile	Asn	Tyr	Gln	Ala	Leu	Met	Arg	Lys
						135					140				
Leu	Lys	Val	Pro	Val	Phe	Pro	Ile	Val	Ala	Arg	Lys	Ala	Lys	Gly	Thr
145					150					155					160
His	Ser	Leu	Leu	Gly	Glu	Leu	Asn	Tyr	Leu	Glu	Pro	His	Gln	Arg	Arg
				165					170					175	
Ala	Phe	Lys	Ile	Asn	Tyr	Gly	Thr	Glu	Ile	Glu	Thr	Ala	Ile	Gln	Gln
			180					185					190		
Ile	Cys	Ser	Ile	Ile	Lys	Gln	Asp	Asn	Met	Tyr	Pro	Thr	Glu	Arg	Leu
		195					200					205			
Arg	Phe	Ile	Ala	Ile	Gln	Tyr	Leu	Ile	Asp	Asn	Val	Gln	Ile	Tyr	Gln
	210					215					220				
Glu	Leu	Asp	Ala	Met	Ile	Leu	Glu	Gln	Leu	Glu	Pro	Ile	Lys	Arg	Lys
225					230					235					240
Leu	Ser	Asn	Ala	Thr	Glu	Gln	Ser	Thr	Arg	Gln	Arg	Ile	Glu	Ala	Val
				245					250					255	
Arg	Asn	Asp	Tyr	Ile	Asn	Gln	Leu	Leu	Glu	Asp	Ile	Val	Glu	Tyr	Pro
			260					265					270		
Glu	Glu	Asp	Lys	Gln	Phe	Phe	Thr	Ser	Lys	Val	Asp	Arg	Leu	Leu	Leu

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 <213> S.epidermidis
 <400> 4723
 Gln His Pro Gln Leu Cys Lys Ile Ile Phe Gly Asp Leu Gln Asn Ser
 1 5 10 15
 Glu Lys Pro Glu His Asp His Gly His Ala Ala Glu His His Leu Met
 20 25 30
 Thr Glu Glu Leu Thr Ala His Leu
 35 40
 <210> 4724
 <211> 675
 <212> PRT
 <213> S.epidermidis
 <400> 4724
 Cys Thr Thr His Asn Ile Arg Gly Val Val Ile Met Thr Gln Ser Tyr
 1 5 10 15
 Cys Ile Leu Gly Asn Pro Asn Val Gly Lys Thr Ser Leu Phe Asn Ala
 20 25 30
 Leu Thr Gly Ser Tyr Glu Tyr Ile Gly Asn Trp Ser Gly Val Thr Val
 35 40 45
 Glu Lys Lys Val Gly Lys Leu Lys Asp Asn Val Gly Asp Leu Val Asp
 50 55 60
 Leu Pro Gly Ile Tyr Asp Leu Ser Pro Ile Ser Lys Asp Glu Thr Val
 65 70 75 80
 Val Thr Asp Tyr Leu Met Ser Thr Ser Phe Thr Gly Met Ile Asn Ile
 85 90 95
 Ile Asp Ala Cys Gln Leu Lys Arg Asn Leu Asn Leu Thr Ile Gln Leu
 100 105 110
 Met Glu Leu Asn Lys Pro Met Ile Ile Gly Leu Asn Met Ile Asp Val
 115 120 125
 Ala Thr Gln Arg Gly Ile Lys Ile Asn Tyr Gln Ala Leu Met Arg Lys
 130 135 140
 Leu Lys Val Pro Val Phe Pro Ile Val Ala Arg Lys Ala Lys Gly Thr
 145 150 155 160
 His Ser Leu Leu Gly Glu Leu Asn Tyr Leu Glu Pro His Gln Arg Arg
 165 170 175
 Ala Phe Lys Ile Asn Tyr Gly Thr Glu Ile Glu Thr Ala Ile Gln Gln
 180 185 190
 Ile Cys Ser Ile Ile Lys Gln Asp Asn Met Tyr Pro Thr Glu Arg Leu
 195 200 205
 Arg Phe Ile Ala Ile Gln Tyr Leu Ile Asp Asn Val Gln Ile Tyr Gln
 210 215 220
 Glu Leu Asp Ala Met Ile Leu Glu Gln Leu Glu Pro Ile Lys Arg Lys
 225 230 235 240
 Leu Ser Asn Ala Thr Glu Gln Ser Thr Arg Gln Arg Ile Glu Ala Val
 245 250 255
 Arg Asn Asp Tyr Ile Asn Gln Leu Leu Glu Asp Ile Val Glu Tyr Pro
 260 265 270
 Glu Glu Asp Lys Gln Phe Phe Thr Ser Lys Val Asp Arg Leu Leu Leu

<400> 4725

Leu Glu His His Glu Ile His Ser Leu Met Leu Leu Asn Leu Ile Ala
 1 5 10 15
 Thr Tyr Lys Met Lys Gly Ala His Pro Met Lys Asn Ile Lys Lys Pro
 20 25 30
 Phe Asp Leu Lys Gly Lys Ser Leu Leu Lys Glu Tyr Asp Leu Thr Gly
 35 40 45
 Glu Glu Phe Glu Gly Leu Ile Asp Phe Ala Met Thr Leu Lys Lys Tyr
 50 55 60
 Lys Gln Gln Gly Thr Pro His Arg Tyr Leu Glu Gly Lys Asn Ile Ala
 65 70 75 80
 Leu Leu Phe Glu Lys Thr Ser Thr Arg Thr Arg Ala Ala Phe Thr Val
 85 90 95
 Ala Ser Ile Asp Leu Gly Ala His Pro Glu Phe Leu Gly Lys Asn Asp
 100 105 110
 Ile Gln Leu Gly Lys Lys Glu Ser Val Glu Asp Thr Ala Lys Val Leu
 115 120 125
 Gly Arg Met Phe Asp Gly Ile Glu Phe Arg Gly Phe Ser Gln Lys Thr
 130 135 140
 Val Glu Gln Leu Ala Glu Phe Ser Gly Val Pro Val Trp Asn Gly Leu
 145 150 155 160
 Thr Asp Asp Trp His Pro Thr Gln Met Leu Ala Asp Tyr Met Thr Ile
 165 170 175
 Lys Glu Asn Phe Gly Tyr Leu Lys Gly Ile Asn Leu Thr Tyr Val Gly
 180 185 190
 Asn Gly Arg Asn Asn Val Ala His Ser Leu Met Val Ala Gly Ala Met
 195 200 205
 Leu Gly Val Asn Val Arg Ile Cys Thr Pro Ser Ser Leu Thr Pro Arg
 210 215 220
 Asp Val Tyr Phe Asn Ile Ala Lys Asp Gln Ala Ser Asn Tyr Gly Gly
 225 230 235 240
 Ser Val Lys Met Thr Asp Asn Ile His Thr Ala Val Lys Asp Ala Asp
 245 250 255
 Val Ile Tyr Thr Asp Val Trp Val Ser Met Gly Glu Glu Ser Glu Phe
 260 265 270
 Glu Thr Arg Ile His Leu Leu Lys Asp Tyr Gln Val Asn Arg Lys Met
 275 280 285
 Leu Asn Leu Thr Gly Lys Val Asp Thr Ile Phe Leu His Cys Leu Pro
 290 295 300
 Ala Phe His Asp Thr Gln Thr Glu Tyr Gly Gln Asn Ile Phe Glu Lys
 305 310 315 320
 Tyr Gly Leu Thr Glu Met Glu Val Thr Asp Glu Ile Phe Arg Ser Glu
 325 330 335
 His Ser Arg Val Phe Asp Gln Ala Glu Asn Arg Met His Thr Ile Lys
 340 345 350
 Ala Val Met Ala Ala Thr Leu Gly
 355 360

<210> 4726

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<212> PRT

<213> S.epidermidis

<400> 4726

Lys Ser Asn Gln Ile Thr Gln Ile Lys Lys Glu Glu Tyr Tyr Gln Ile

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<210> 4728
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<210> 4729
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<400> 4729
Gly Met Ser Gln Tyr Pro Phe Tyr Arg Arg Met Phe Ile Ile Ile Lys
1 5 10 15
Lys Cys Thr Leu Ile Tyr Asn Ser Ile Lys Glu Leu Tyr Pro Met Arg
20 25 30

Lys Ile Leu Lys Gly Ile Ile Leu Ser Leu Ile Ile Ile Gly Leu Ile
 35 40 45
 Lys Thr Phe Asn Glu Tyr Asp Ile Ile His Cys Ala Asn His Tyr Phe
 50 55 60
 Glu Gln Ile Lys Ser Gly Lys Ile Ile Glu Asp Ile Lys Ile Asp His
 65 70 75 80
 Phe Asn Asn Tyr His Asn Ile Asn Phe Glu Asp Leu Asn Pro Ser Asp
 85 90 95
 Phe Phe

<210> 4730

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<212> PRT

<213> S.epidermidis

<400> 4730

Lys Arg Gly His Ile Val Ile Glu Ala Asn Gln Ile Leu Ala Lys Met
 1 5 10 15
 Lys Asn Gln Lys Ile Asn Tyr Asp Lys Val Leu Arg Lys Ile Ile Ser
 20 25 30
 Gln Trp Glu Arg Asp Gly Glu Arg Pro Lys Ile Leu Leu His Ser Cys
 35 40 45
 Cys Ala Pro Cys Ser Thr Tyr Thr Leu Glu Phe Leu Thr Gln Tyr Ala
 50 55 60
 Asp Ile Ala Ile Tyr Phe Ala Asn Pro Asn Ile His Pro Lys Ser Glu
 65 70 75 80
 Tyr Leu Arg Arg Ala Lys Val Gln Glu Gln Phe Val Asn Asp Phe Asn
 85 90 95
 Asn Lys Thr Gly Ala Asn Val Lys Tyr Ile Glu Ala Glu Tyr Glu Pro
 100 105 110
 His Lys Phe Met Lys Met Ala Lys Asp Lys Gly Leu Thr Glu Glu Pro
 115 120 125
 Glu Gly Gly Leu Arg Cys Thr Ala Cys Phe Glu Met Arg Leu Glu Ile
 130 135 140
 Val Ala Lys Ala Ala Leu Glu His Gly Tyr Asp Tyr Phe Gly Ser Ala
 145 150 155 160
 Ile Thr Leu Ser Pro Lys Lys Asn Ala Gln Leu Ile Asn Glu Leu Gly
 165 170 175
 Met Asp Val Gln Asn Ile Tyr Asn Val Lys Tyr Leu Pro Ser Asp Phe
 180 185 190
 Lys Lys Asn Lys Gly Tyr Glu Arg Ser Ile Glu Met Cys Asn Asp Tyr
 195 200 205
 Asn Ile Phe Arg Gln Cys Tyr Cys Gly Cys Val Phe Ala Ala Met Lys
 210 215 220
 Gln Gly Ile Asp Phe Lys Gln Ile Asn Lys Asp Ala Gln Ala Phe Leu
 225 230 235 240
 Gln Gln Phe

<210> 4731

<211> 44

<212> PRT

<213> S.epidermidis

<400> 4731

Ile Leu Leu His Asn Val Leu Glu Ile His Ile Leu Ile Phe Ile Phe
 1 5 10 15
 Lys Gln Ser Ser Tyr Lys Ser Ile Thr Val Met Leu His Thr Lys Lys
 20 25 30
 Pro Glu Thr Thr Ser Tyr Leu Arg Leu Leu Tyr Glu
 35 40

<210> 4732
 <211> 55
 <212> PRT
 <213> S.epidermidis

<400> 4732
 Ile Phe Ile His Phe Val Thr His Leu Val Asn Ile Ile Leu Leu Ser
 1 5 10 15
 Tyr Thr Thr Asp Phe Ser Lys Ser Lys Ser Leu Tyr Tyr Lys Ile Ile
 20 25 30
 Leu Asn Pro Lys Ser Ile Phe Glu Asn Ile Ser Asn Tyr Leu Tyr Thr
 35 40 45
 Leu Asn Lys Tyr Phe Ala Ser
 50 55

<210> 4733
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 <212> PRT
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<400> 4733
 Val Gln Ile His Asn Leu Val Thr Gln Met Tyr Lys Leu Phe Gln Leu
 1 5 10 15
 Gln Leu Leu Gln Lys Val Val Ala Thr Ala His Gln Leu Leu His Thr
 20 25 30
 Gln His Gln Ala Ile Thr Thr Ala Leu Thr Val Val Gln
 35 40 45

<210> 4734
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 <212> PRT
 <213> S.epidermidis

<400> 4734
 Cys Asn Ser His Leu Lys Leu Lys Ser Gly Ile Ser Leu Met Ala Trp
 1 5 10 15
 Ile Trp Phe Ser Arg Met Lys Leu Arg Pro Lys Leu Lys Tyr Ile Ile
 20 25 30
 Asn Tyr Phe Ile Ile Tyr Val Ala Ile Glu Ile Thr Leu Tyr Ala Val
 35 40 45
 Ile Leu Asn His Lys Leu Phe Tyr Asn Glu Leu His Ser Leu
 50 55 60

<210> 4735
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 <212> PRT
 <213> S.epidermidis

<400> 4735

Gly	Ser	Thr	His	Lys	Met	Lys	Lys	Asn	Lys	Phe	Leu	Val	Tyr	Leu	Leu
1				5					10					15	
Ser	Thr	Ala	Leu	Ile	Thr	Pro	Thr	Phe	Ala	Thr	Gln	Thr	Ala	Phe	Ala
			20					25					30		
Glu	Asp	Ser	Ser	Asn	Lys	Asn	Thr	Asn	Ser	Asp	Lys	Met	Glu	Gln	His
	35						40					45			
Gln	Ser	Gln	Lys	Glu	Thr	Ser	Lys	Gln	Ser	Glu	Lys	Asp	Glu	Phe	Asn
	50					55					60				
Asn	Asp	Asp	Ser	Lys	His	Asp	Ser	Asp	Asp	Lys	Lys	Ser	Thr	Ser	Asp
65					70					75					80
Ser	Lys	Asp	Lys	Asp	Ser	Asn	Lys	Pro	Leu	Ser	Ala	Asp	Ser	Thr	His
				85					90					95	
Arg	Asn	Tyr	Lys	Met	Lys	Asp	Asp	Asn	Leu	Val	Asp	Gln	Leu	Tyr	Asp
			100					105					110		
Asn	Phe	Lys	Ser	Gln	Ser	Val	Asp	Phe	Ser	Lys	Tyr	Trp	Glu	Pro	Asn
		115					120					125			
Lys	Tyr	Glu	Asp	Ser	Phe	Ser	Leu	Thr	Ser	Leu	Ile	Gln	Asn	Leu	Phe
	130					135					140				
Asp	Phe	Asp	Ser	Asp	Ile	Thr	Asp	Tyr	Glu	Gln	Pro	Gln	Lys	Thr	Ser
145					150					155					160
His	Ser	Ser	Asn	Asp	Glu	Lys	Asp	Gln	Val	Asp	Gln	Ala	Asp	Gln	Ala
				165					170					175	
Lys	Gln	Pro	Ser	Gln	His	Gln	Glu	Pro	Ser	Gln	Ser	Ser	Ala	Lys	Gln
			180					185					190		
Asp	Gln	Glu	Ser	Ser	Asn	Asp	Glu	Lys	Glu	Lys	Thr	Thr	Asn	His	Gln
	195						200					205			
Ala	Asp	Ser	Asp	Val	Ser	Asp	Leu	Leu	Gly	Glu	Met	Asp	Lys	Glu	Asp
	210					215					220				
Gln	Glu	Gly	Glu	Asp	Val	Asp	Thr	Asn	Lys	Asn	Gln	Ser	Ser	Ser	Glu
225					230					235					240
Gln	Gln	Gln	Thr	Gln	Ala	Asn	Asp	Asp	Ser	Ser	Glu	His	Asn	Lys	Lys
				245					250					255	
Tyr	Ser	Ser	Ile	Thr	Asp	Ser	Ala	Leu	Asp	Ser	Ile	Leu	Asp	Glu	Tyr
			260					265					270		
Ser	Gln	Asp	Ala	Lys	Lys	Thr	Glu	Lys	Asp	Tyr	Asn	Lys	Ser	Lys	Asn
		275					280					285			
Thr	Ser	His	Thr	Lys	Thr	Ser	Gln	Ser	Asp	Asn	Ala	Asp	Lys	Asn	Pro
						295					300				
Gln	Leu	Pro	Thr	Asp	Asp	Glu	Leu	Lys	His	Gln	Ser	Lys	Pro	Ala	Gln
305					310					315					320
Ser	Phe	Glu	Asp	Asp	Ile	Lys	Arg	Ser	Asn	Thr	Arg	Ser	Thr	Ser	Leu
				325					330					335	
Phe	Gln	Gln	Leu	Pro	Glu	Leu	Asp	Asn	Gly	Asp	Leu	Ser	Ser	Asp	Ser
			340					345					350		
Phe	Asn	Val	Val	Asp	Ser	Gln	Asp	Thr	Arg	Asp	Phe	Ile	Gln	Ser	Ile
		355					360					365			
Ala	Lys	Asp	Ala	His	Gln	Ile	Gly	Lys	Asp	Gln	Asp	Ile	Tyr	Ala	Ser
		370				375					380				
Val	Met	Ile	Ala	Gln	Ala	Ile	Leu	Glu	Ser	Asp	Ser	Gly	Lys	Ser	Ser
385					390					395					400
Leu	Ala	Gln	Ser	Pro	Asn	His	Asn	Leu	Phe	Gly	Ile	Lys	Gly	Asp	Tyr
				405					410					415	
Lys	Gly	Gln	Ser	Val	Thr	Phe	Asn	Thr	Leu	Glu	Ala	Asp	Ser	Ser	Asn
			420					425					430		
His	Met	Phe	Ser	Ile	Gln	Ala	Gly	Phe	Arg	Lys	Tyr	Pro	Ser	Thr	Lys
		435					440					445			

Gln Ser Leu Glu Asp Tyr Ala Asp Leu Ile Lys His Gly Ile Asp Gly
 450 455 460
 Asn Pro Ser Ile Tyr Lys Pro Thr Trp Lys Ser Glu Ala Leu Ser Tyr
 465 470 475 480
 Lys Asp Ala Thr Ser His Leu Ser Arg Ser Tyr Ala Thr Asp Pro Asn
 485 490 495
 Tyr Ser Lys Lys Leu Asn Ser Ile Ile Lys His Tyr His Leu Thr Ser
 500 505 510
 Phe Asp Lys Glu Lys Met Pro Asn Met Lys Lys Tyr Asn Lys Ser Ile
 515 520 525
 Gly Thr Asp Val Ser Gly Asn Asp Phe Lys Pro Phe Thr Glu Thr Ser
 530 535 540
 Gly Thr Ser Pro Tyr Pro His Gly Gln Cys Thr Trp Tyr Val Tyr His
 545 550 555 560
 Arg Met Asn Gln Phe Asp Ala Ser Ile Ser Gly Asp Leu Gly Asp Ala
 565 570 575
 His Asn Trp Asn Asn Arg Ala Glu Ser Glu Gly Tyr Thr Val Thr His
 580 585 590
 Thr Pro Lys Asn His Thr Ala Val Val Phe Glu Ala Gly Gln Leu Gly
 595 600 605
 Ala Asp Thr Gln Tyr Gly His Val Ala Phe Val Glu Lys Val Asn Asp
 610 615 620
 Asp Gly Ser Ile Val Ile Ser Glu Ser Asn Val Lys Gly Leu Gly Val
 625 630 635 640
 Ile Ser Phe Arg Thr Ile Asp Ala Glu Asp Ala Gln Asp Leu Asp Tyr
 645 650 655
 Ile Lys Gly Lys
 660

<210> 4736

<211> 227

<212> PRT

<213> S.epidermidis

<400> 4736

His Lys Gly Leu Arg Arg Arg Lys Arg Gln Phe Leu Tyr Leu Phe Asn
 1 5 10 15
 Arg Asn Cys Leu Phe Tyr Asn Cys Ile Lys Lys Thr Met Arg Tyr Ala
 20 25 30
 Tyr Gly Ser Glu Lys Val Leu Pro Leu Ser Lys Lys Thr Ser His His
 35 40 45
 Ala Arg Ile Tyr Ile Gly Gln Pro Thr Lys Ile Phe Asn Thr Arg Arg
 50 55 60
 Cys Phe Phe Met Ser Ser Asp Thr Asn Ser Leu Ala His Thr Lys Trp
 65 70 75 80
 Asn Cys Lys Tyr His Ile Val Phe Ala Pro Lys Tyr Arg Arg Gln Val
 85 90 95
 Ile Tyr Gly Lys Ile Lys Arg Asp Ile Gly Val Ile Leu Arg Gln Leu
 100 105 110
 Cys Glu Arg Lys Gly Val Glu Ile Ile Glu Ala Glu Ala Ser Lys Asn
 115 120 125
 His Ile His Met Leu Val Ser Ile Pro Pro Lys Leu Gly Val Ser Ser
 130 135 140
 Phe Val Gly Tyr Leu Lys Gly Lys Ser Ser Leu Met Ile Phe Asp Arg
 145 150 155 160
 His Ala Asn Leu Lys Tyr Arg Tyr Gly Asn Arg Lys Phe Trp Cys Lys

				165					170					175			
Gly	Phe	Tyr	Val	Asp	Thr	Val	Gly	Arg	Asn	Lys	Lys	Val	Ile	Glu	Asn		
			180					185					190				
Tyr	Ile	Arg	Asn	Gln	Leu	Gln	Glu	Glu	Ile	Val	Ala	Asp	Gln	Ile	Ser		
		195					200					205					
Met	Glu	Glu	Tyr	Leu	Asp	Pro	Phe	Thr	Gly	Glu	Glu	Ile	Lys	Lys	Arg		
	210					215					220						
Arg	Lys	Lys															
225																	

<210> 4737

<211> 52

<212> PRT

<213> S.epidermidis

<400> 4737

Gln	Phe	Lys	His	Ile	Leu	Ile	Ser	Thr	Leu	Leu	Asn	Ser	Ile	Pro	Tyr		
1			5					10					15				
Phe	Asp	Tyr	Phe	Asn	Ile	Ile	Lys	Phe	Lys	Phe	Val	Pro	Val	Lys	Leu		
		20					25				30						
Leu	Tyr	Ser	Ile	Thr	His	Leu	Tyr	Tyr	Arg	Cys	Ile	His	Thr	Tyr	Lys		
		35				40					45						
Cys	Asn	His	Thr														
50																	

<210> 4738

<211> 251

<212> PRT

<213> S.epidermidis

<400> 4738

Ile	Thr	Lys	Gln	Thr	Asn	Phe	Lys	Leu	Tyr	Leu	Glu	Asp	Leu	Tyr	Ile		
1			5					10					15				
Met	Lys	Lys	Thr	Val	Ile	Ala	Ser	Thr	Leu	Ala	Val	Ser	Leu	Gly	Ile		
		20					25				30						
Ala	Gly	Tyr	Gly	Leu	Ser	Gly	His	Glu	Ala	His	Ala	Ser	Glu	Thr	Thr		
		35				40					45						
Asn	Val	Asp	Lys	Ala	His	Leu	Val	Asp	Leu	Ala	Gln	His	Asn	Pro	Glu		
	50				55				60								
Glu	Leu	Asn	Ala	Lys	Pro	Val	Gln	Ala	Gly	Ala	Tyr	Asp	Ile	His	Phe		
65			70					75					80				
Val	Asp	Asn	Gly	Tyr	Gln	Tyr	Asn	Phe	Thr	Ser	Asn	Gly	Ser	Glu	Trp		
		85					90					95					
Ser	Trp	Ser	Tyr	Ala	Val	Ala	Gly	Ser	Asp	Ala	Asp	Tyr	Thr	Glu	Ser		
		100					105					110					
Ser	Ser	Asn	Gln	Glu	Val	Ser	Ala	Asn	Thr	Gln	Ser	Ser	Asn	Thr	Asn		
		115				120					125						
Val	Gln	Ala	Val	Ser	Ala	Pro	Thr	Ser	Ser	Glu	Ser	Arg	Ser	Tyr	Ser		
	130					135				140							
Thr	Ser	Thr	Thr	Ser	Tyr	Ser	Ala	Pro	Ser	His	Asn	Tyr	Ser	Ser	His		
145				150					155					160			
Ser	Ser	Ser	Val	Arg	Leu	Ser	Asn	Gly	Asn	Thr	Ala	Gly	Ser	Val	Gly		
		165					170					175					
Ser	Tyr	Ala	Ala	Ala	Gln	Met	Ala	Ala	Arg	Thr	Gly	Val	Ser	Ala	Ser		
		180					185				190						
Thr	Trp	Glu	His	Ile	Ile	Ala	Arg	Glu	Ser	Asn	Gly	Gln	Leu	His	Ala		

	195		200		205
Arg	Asn	Ala	Ser	Gly	Ala
	210			215	
Gly	Ser	Thr	Gly	Ser	Val
225				230	
Tyr	Lys	Ala	Gln	Gly	Leu
				245	
					250

<210> 4739

<211> 513

<212> PRT

<213> S.epidermidis

<400> 4739

Leu	Phe	Leu	His	Glu	Phe	Leu	Asn	Gln	Arg	Lys	Val	Ser	Lys	Lys	Met
1				5					10					15	
Ala	Asn	Lys	Glu	Ser	Lys	Asn	Val	Val	Ile	Ile	Gly	Ala	Gly	Val	Leu
			20					25					30		
Ser	Thr	Thr	Phe	Gly	Ser	Met	Ile	Lys	Glu	Leu	Glu	Pro	Asp	Trp	Asn
		35				40						45			
Ile	Lys	Leu	Tyr	Glu	Arg	Leu	Asp	Arg	Pro	Gly	Ile	Glu	Ser	Ser	Asn
	50					55					60				
Glu	Arg	Asn	Asn	Ala	Gly	Thr	Gly	His	Ala	Ala	Leu	Cys	Glu	Leu	Asn
65				70					75						80
Tyr	Thr	Val	Gln	Gln	Pro	Asp	Gly	Ser	Ile	Asp	Ile	Glu	Lys	Ala	Lys
			85					90						95	
Glu	Ile	Asn	Glu	Gln	Phe	Glu	Ile	Ser	Lys	Gln	Phe	Trp	Gly	His	Leu
		100						105					110		
Val	Lys	Ser	Gly	Asn	Ile	Ser	Asn	Pro	Arg	Asp	Phe	Ile	Asn	Pro	Leu
		115					120					125			
Pro	His	Ile	Ser	Phe	Val	Arg	Gly	Lys	Asn	Asn	Val	Lys	Phe	Leu	Lys
	130					135					140				
Asn	Arg	Tyr	Glu	Ala	Met	Arg	Asn	Phe	Pro	Met	Phe	Asp	Asn	Ile	Glu
145				150						155					160
Tyr	Thr	Glu	Asp	Ile	Glu	Glu	Met	Arg	Lys	Trp	Met	Pro	Leu	Met	Met
			165					170						175	
Thr	Gly	Arg	Thr	Gly	Asn	Glu	Ile	Met	Ala	Ala	Ser	Lys	Ile	Asp	Glu
		180						185					190		
Gly	Thr	Asp	Val	Asn	Tyr	Gly	Glu	Leu	Thr	Arg	Lys	Met	Ala	Lys	Ser
	195					200					205				
Ile	Glu	Lys	His	Pro	Asn	Ala	Asp	Val	Gln	Tyr	Asn	His	Glu	Val	Ile
	210					215					220				
Asn	Phe	Asn	Arg	Arg	Lys	Asp	Gly	Ile	Trp	Glu	Val	Lys	Val	Lys	Asn
225					230					235					240
Arg	Asn	Ser	Gly	Asp	Val	Glu	Thr	Val	Leu	Ala	Asp	Tyr	Val	Phe	Ile
			245						250					255	
Gly	Ala	Gly	Gly	Gly	Ala	Ile	Pro	Leu	Gln	Lys	Thr	Gly	Ile	Pro	
		260						265					270		
Glu	Ser	Lys	His	Leu	Gly	Gly	Phe	Pro	Ile	Ser	Gly	Gln	Phe	Leu	Ile
		275					280					285			
Cys	Thr	Asn	Pro	Asp	Val	Ile	Asn	Glu	His	Asp	Val	Lys	Val	Tyr	Gly
	290					295				300					
Lys	Glu	Pro	Pro	Gly	Thr	Pro	Pro	Met	Thr	Val	Pro	His	Leu	Asp	Thr
305				310						315					320
Arg	Tyr	Ile	Asp	Gly	Glu	Arg	Thr	Leu	Leu	Phe	Gly	Pro	Phe	Ala	Asn
				325					330					335	

Ile Gly Pro Lys Phe Leu Arg Asn Gly Ser Asn Leu Asp Leu Phe Lys
 340 345 350
 Ser Val Lys Pro Tyr Asn Ile Thr Thr Leu Leu Ala Ser Ala Val Lys
 355 360 365
 Asn Leu Pro Leu Ile Lys Tyr Ser Ile Asp Gln Val Leu Met Thr Lys
 370 375 380
 Glu Gly Cys Met Asn His Leu Arg Thr Phe Tyr Pro Glu Ala Arg Asp
 385 390 395 400
 Glu Asp Trp Gln Leu Tyr Thr Ala Gly Lys Arg Val Gln Val Ile Lys
 405 410 415
 Asp Thr Lys Glu His Gly Lys Gly Phe Ile Gln Phe Gly Thr Glu Val
 420 425 430
 Val Asn Ser Lys Asp His Ser Val Ile Ala Leu Leu Gly Glu Ser Pro
 435 440 445
 Gly Ala Ser Thr Ser Val Ser Val Ala Leu Glu Val Leu Glu Lys Asn
 450 455 460
 Phe Ala Glu Tyr Glu Lys Asp Trp Thr Pro Lys Leu Gln Lys Met Ile
 465 470 475 480
 Pro Ser Tyr Gly Lys Ser Leu Ile Asp Asp Val Lys Leu Met Arg Ala
 485 490 495
 Thr Arg Lys Gln Thr Ser Lys Asp Leu Glu Leu Asn Tyr Tyr Glu Ser
 500 505 510
 Lys

<210> 4740
 <211> 46
 <212> PRT
 <213> S.epidermidis

<400> 4740
 Ile Asn Ser Gln Asn Arg Phe Asn Ser Leu Pro Lys Thr Phe Ile Tyr
 1 5 10 15
 Thr Asn Phe Ile Phe Tyr Asp Ser Phe Lys Leu Leu Phe Leu Val Asn
 20 25 30
 Trp Phe Tyr Leu Ser Thr Leu Asn Thr Val Lys Val Lys Ser
 35 40 45

<210> 4741
 <211> 75
 <212> PRT
 <213> S.epidermidis

<400> 4741
 Leu Tyr Phe Lys Tyr Ile Gly Asp Arg His Pro Leu Lys Asn Thr Ser
 1 5 10 15
 Tyr Ile Phe Lys Met Arg Ala Ser Gly Ile Phe Leu Tyr Thr Asn Lys
 20 25 30
 Pro Ile Asn Lys Ile Asn Ile Ile Pro Asp Thr Glu Ile Ile Val Ser
 35 40 45
 Asn Asn Asp His Val Lys Asn Val Ser Leu Thr Val Ser Pro Lys Tyr
 50 55 60
 Ser Leu Asn Ile Gln Asn Pro Ala Ser Leu Thr
 65 70 75

<210> 4742

<211> 49
 <212> PRT
 <213> S.epidermidis

<400> 4742

Thr	Phe	Cys	Leu	Phe	Lys	Asn	Arg	Ile	Phe	Glu	Arg	Ser	Val	Ile	Lys
1				5					10					15	
Met	Lys	Lys	Leu	Ala	Val	Ile	Leu	Ala	Leu	Ala	Gly	Ala	Ala	Phe	Tyr
			20					25					30		
Gly	Phe	Lys	Lys	Tyr	Gln	Asn	His	Val	Asn	Gln	Ala	Pro	Asn	Ile	Glu
		35					40					45			

Tyr

<210> 4743
 <211> 64
 <212> PRT
 <213> S.epidermidis

<400> 4743

Asn	Glu	Phe	Lys	Asp	Asn	Tyr	Cys	Arg	Val	Ile	Lys	Lys	Ser	Phe	Asn
1				5					10					15	
Tyr	Asp	Gln	Thr	Gly	Lys	Arg	Arg	Arg	Ile	Ile	Arg	Glu	Phe	Val	Lys
			20					25					30		
Lys	Leu	Thr	Leu	Phe	His	Glu	Tyr	Ser	Ile	Leu	Phe	Ile	Lys	Ile	Lys
		35					40					45			
Ser	Ile	Gln	Ser	Asp	Ile	Phe	Lys	His	Met	Leu	Tyr	Ile	Lys	Ser	Ser
	50					55					60				

<210> 4744
 <211> 366
 <212> PRT
 <213> S.epidermidis

<400> 4744

Arg	Leu	Ile	Asn	Gly	Gly	Met	Thr	Met	Pro	Glu	Ser	Lys	Ala	Leu	Leu
1				5					10					15	
Lys	Ser	Leu	Thr	Asp	Val	Asn	Gly	Ile	Ser	Gly	His	Glu	Met	Gln	Val
			20					25					30		
Lys	Ser	Leu	Met	Lys	Asp	Tyr	Leu	Thr	Pro	Val	Ser	Asp	Asp	Ile	Val
		35					40					45			
Glu	Asp	Gln	Leu	Gly	Gly	Ile	Phe	Gly	Lys	Lys	Asn	Ala	Thr	His	Gly
	50					55				60					
Thr	Lys	Ser	Leu	Met	Ile	Ser	Gly	His	Leu	Asp	Glu	Ile	Gly	Phe	Ile
65					70					75					80
Val	Thr	Gln	Ile	Asp	Glu	Gln	Gly	Tyr	Ile	Tyr	Phe	Thr	Pro	Ile	Gly
			85						90					95	
Gly	Trp	Trp	Asn	Gln	Val	Met	Leu	Ser	Gln	Lys	Val	Thr	Ile	Thr	Thr
			100					105					110		
Glu	Ser	Gly	Lys	Glu	Ile	Arg	Gly	Ile	Ile	Gly	Ser	Lys	Pro	Pro	His
		115					120					125			
Ala	Leu	Ser	Ser	Glu	Glu	Arg	Lys	Lys	Pro	Val	Asp	Ile	Lys	Asn	Met
	130					135					140				
Tyr	Ile	Asp	Ile	Gly	Val	Arg	Asn	Lys	Glu	Glu	Ala	Lys	Glu	Ala	Gly
145					150					155					160
Ile	Glu	Leu	Gly	Asn	Met	Ile	Thr	Pro	Tyr	Ser	Glu	Phe	Glu	Ser	Leu

				165						170						175			
Ala	Asn	Asp	Lys	Tyr	Leu	Thr	Ala	Lys	Ala	Phe	Asp	Asn	Arg	Tyr	Gly				
			180						185				190						
Cys	Ala	Leu	Ala	Val	Glu	Val	Leu	Gln	Gln	Leu	Lys	Asp	Glu	Asn	Ile				
		195					200					205							
Asp	Ile	Asn	Leu	Tyr	Ala	Gly	Ala	Thr	Val	Gln	Glu	Glu	Val	Gly	Leu				
	210					215					220								
Arg	Gly	Ala	Lys	Val	Ala	Ala	Asn	Leu	Ile	Lys	Pro	Asp	Leu	Ala	Ile				
225					230					235					240				
Ala	Val	Asp	Val	Gly	Val	Ala	Tyr	Asp	Val	Pro	Gly	Met	Thr	Ser	Glu				
			245						250						255				
Lys	Asn	Glu	Gly	Lys	Leu	Gly	Asp	Gly	Pro	Leu	Ala	Ile	Leu	Met	Asp				
		260						265					270						
Ala	Thr	Ser	Ile	Ala	His	Asp	Gly	Leu	Arg	Lys	His	Ile	Lys	Asp	Val				
		275					280					285							
Ala	Glu	His	His	Asn	Ile	Pro	Val	Gln	Trp	Ala	Thr	Thr	Pro	Gly	Gly				
	290					295					300								
Gly	Thr	Asp	Ala	Gly	Ser	Ile	His	Val	Ala	Asn	Glu	Gly	Ile	Pro	Thr				
305					310					315					320				
Ile	Thr	Ile	Gly	Val	Pro	Leu	Arg	Tyr	Met	His	Ser	Asn	Val	Ser	Val				
			325						330					335					
Leu	Asn	Ile	Asp	Asp	Tyr	Thr	Asn	Ser	Val	Arg	Leu	Ile	Thr	Glu	Ile				
		340						345					350						
Val	Arg	Ser	Leu	Asn	Asp	Asp	Ser	Tyr	Gln	Ala	Leu	Met	Trp						
		355					360					365							

<210> 4745

<211> 46

<212> PRT

<213> S.epidermidis

<400> 4745

Leu	Ile	Ile	Lys	Lys	Ile	Lys	Phe	Leu	Thr	Thr	Met	Leu	Ala	Tyr	Leu
1			5					10					15		
Phe	Lys	Met	Leu	His	Tyr	Thr	Leu	Val	His	Lys	Cys	Asp	Leu	Ile	Ile
		20					25					30			
Arg	Asn	Asn	Asp	Asn	Thr	Lys	Gly	Trp	Asp	Asn	Tyr	Asp	Arg		
		35					40					45			

<210> 4746

<211> 52

<212> PRT

<213> S.epidermidis

<400> 4746

Leu	Ile	Ile	Lys	Phe	Cys	Phe	Tyr	Asp	Thr	Ser	Phe	Phe	Trp	Lys	Leu
1			5					10					15		
Lys	Arg	Tyr	Asp	Lys	Tyr	Ser	Gly	Glu	Ser	Asn	Asn	Thr	Ser	Cys	Gly
		20					25					30			
Leu	Phe	Ile	Val	Val	Lys	Gly	Ser	Leu	Lys	Asp	Thr	Phe	Gly	Asn	Val
		35					40					45			
Lys	Ile	Lys	Ile												
		50													

<210> 4747

<211> 62

<212> PRT

<213> S.epidermidis

<400> 4747

Val	Lys	Ile	Lys	Val	Thr	Asn	Leu	Ile	Leu	Arg	Cys	Ile	Met	Arg	Lys
1			5						10					15	
Leu	Ile	Ser	Thr	Ile	Ile	Val	Ser	Thr	Leu	Leu	Ile	Gly	Gly	Cys	Ser
			20					25					30		
Thr	Val	His	Lys	Glu	Ala	Lys	His	Thr	Ser	Gln	Ser	Ile	Pro	Glu	Glu
		35					40					45			
Val	Pro	Ala	Ser	Gln	Tyr	Lys	Gly	Gln	Gly	Phe	His	Asn	Gln		
	50					55					60				

<210> 4748

<211> 293

<212> PRT

<213> S.epidermidis

<400> 4748

Met	Glu	Ile	Lys	Gln	Ile	Lys	Tyr	Phe	Val	Glu	Val	Val	Arg	Gln	Gly
1			5						10					15	
Gly	Met	Thr	Gln	Ala	Ser	Glu	His	Leu	Tyr	Ile	Ala	Gln	Ser	Thr	Ile
			20					25				30			
Ser	Lys	Ala	Ile	Lys	Asn	Ile	Glu	Asn	Glu	Tyr	Asp	Ile	Thr	Leu	Phe
		35				40					45				
Asp	Arg	Ser	Gln	Lys	Gln	Ile	Lys	Leu	Thr	Asp	Ile	Gly	Gln	Thr	Phe
	50				55					60					
Tyr	Asp	Asn	Ser	Leu	Glu	Phe	Leu	Ala	Leu	Phe	Glu	Lys	Leu	Ser	Leu
65				70					75					80	
Glu	Met	Asn	Asp	Ile	Val	Asn	Val	Gln	Lys	Gly	His	Ile	Lys	Ile	Gly
			85					90						95	
Leu	Ser	Pro	Met	Met	Asn	Val	Gln	Met	Phe	Thr	Asn	Ala	Leu	Asn	Gln
			100					105					110		
Phe	His	Arg	Leu	Tyr	Pro	Asn	Val	Thr	Tyr	Glu	Val	Ile	Glu	Gly	Gly
		115				120						125			
Gly	Lys	Ile	Val	Glu	Asn	Leu	Thr	Ser	Asn	Asp	Asp	Val	Asp	Ile	Gly
	130					135				140					
Ile	Thr	Thr	Leu	Pro	Val	Asp	His	Thr	Glu	Phe	His	Ser	Thr	Ser	Leu
145				150					155					160	
Tyr	Asn	Glu	Glu	Leu	Leu	Leu	Val	Val	Ser	Asn	Asp	His	His	Leu	Ala
			165					170					175		
His	Leu	Asn	Lys	Val	Asp	Met	Ala	Asp	Leu	Lys	Asp	Glu	Glu	Phe	Val
		180						185					190		
Leu	Phe	His	Asp	Asp	Tyr	Tyr	Leu	Lys	Asp	Gln	Ile	Ile	Glu	Asn	Cys
	195					200					205				
Lys	Arg	Leu	Gly	Tyr	Tyr	Pro	Lys	Thr	Val	Ala	Asn	Ile	Ser	Gln	Ile
	210					215					220				
Ser	Phe	Ile	Ala	Asn	Met	Ile	Gln	Gln	Gly	Ile	Gly	Ile	Ser	Ile	Val
225				230					235					240	
Pro	Glu	Ser	Leu	Val	Asn	Leu	Met	Gly	Asn	Asn	Val	Thr	Ser	Ile	Gln
			245					250						255	
Leu	Glu	Asn	Val	Glu	Leu	Ser	Trp	His	Leu	Gly	Val	Ile	Trp	Arg	Lys
		260						265				270			
Asp	Ala	Tyr	Leu	Asn	His	Val	Thr	Arg	Lys	Trp	Ile	Glu	Phe	Ile	Ser
		275					280					285			
Glu	Met	Lys	Pro	Thr											

290

<210> 4749
 <211> 90
 <212> PRT
 <213> S.epidermidis

<400> 4749

Met	Lys	Ile	Asn	Ile	Phe	Gly	Tyr	Asn	Ile	Phe	Ala	Lys	Gly	Gly	Thr
1			5					10					15		
Ser	Arg	Ser	Asn	Ile	Asn	Leu	Val	Lys	Ser	Leu	Leu	Glu	Ile	Gly	His
			20					25				30			
Glu	Val	His	Tyr	Phe	Asn	Tyr	Gln	Asp	Tyr	Asn	Lys	Ser	Asp	Ile	Thr
		35					40				45				
Lys	Leu	Ile	Ile	Tyr	Glu	Gly	Leu	Ser	Thr	Lys	His	Leu	His	Ile	His
	50					55					60				
Gln	Phe	Asn	Ser	Gly	Lys	Glu	Leu	Ala	His	Gly	Asp	Leu	Leu	Ile	Ile
65					70					75					80
Thr	Arg	Glu	Thr	Phe	Leu	Ile	Met	His	Ile						
				85					90						

<210> 4750
 <211> 303
 <212> PRT
 <213> S.epidermidis

<400> 4750

Arg	Gly	Ile	Asn	Met	Phe	Asp	Ser	Ile	Arg	Glu	Thr	Ile	Asp	Tyr	Ser
1			5					10					15		
Val	Glu	Asn	Asn	Ile	Ser	Phe	Ala	Asp	Met	Met	Ile	Asn	Asp	Glu	Met
			20					25				30			
Glu	Arg	Glu	Gly	Lys	Ser	Arg	Glu	Glu	Val	Arg	Asp	Leu	Met	Arg	Gln
		35					40				45				
Asn	Leu	Asn	Val	Met	Arg	Glu	Ala	Val	Glu	Lys	Gly	Thr	Thr	Gly	Asp
	50					55					60				
Gly	Val	Glu	Ser	Val	Thr	Gly	Tyr	Thr	Gly	His	Asp	Ala	Ala	Lys	Leu
65					70					75					80
Arg	Asp	Tyr	Asn	Glu	Asn	Asn	His	Ala	Leu	Ser	Gly	His	Glu	Met	Ile
			85					90					95		
Asp	Ala	Val	Lys	Gly	Ala	Val	Ala	Thr	Asn	Glu	Val	Asn	Ala	Ala	Met
			100					105				110			
Gly	Ile	Ile	Cys	Ala	Thr	Pro	Thr	Ala	Gly	Ser	Ser	Gly	Thr	Ile	Pro
		115					120					125			
Gly	Val	Ile	Phe	Lys	Leu	Glu	Lys	Thr	His	Asn	Ile	Thr	Glu	Asp	Gln
	130					135					140				
Met	Ile	Asp	Phe	Leu	Phe	Thr	Ser	Ala	Leu	Phe	Gly	Arg	Val	Val	Ala
145				150						155					160
Asn	Asn	Ala	Ser	Val	Ala	Gly	Ala	Thr	Gly	Gly	Cys	Gln	Ala	Glu	Val
			165					170					175		
Gly	Ser	Ala	Ser	Ala	Met	Ala	Ala	Ala	Ala	Ala	Val	Ser	Ile	Phe	Asn
			180					185					190		
Gly	Ser	Pro	Glu	Gln	Ser	Gly	His	Ala	Met	Ala	Leu	Ala	Ile	Ser	Asn
		195					200					205			
Leu	Leu	Gly	Leu	Val	Cys	Asp	Pro	Val	Ala	Gly	Leu	Val	Glu	Ile	Pro
	210					215					220				
Cys	Val	Met	Arg	Asn	Ala	Ile	Gly	Ser	Gly	Asn	Ala	Leu	Ile	Ser	Ala

<210> 4754
 <211> 313
 <212> PRT
 <213> S.epidermidis

<400> 4754

Leu Phe Tyr Lys Val Val Tyr Phe Val Glu Leu Asn Ile Leu Glu Cys
 1 5 10 15
 Glu Gly Val Phe Glu Leu Lys Lys Leu Ala Val Ile Cys Ala Phe Thr
 20 25 30
 Ile Leu Ile Leu Ala Gly Cys Gly Leu Gly Asp Ser Asp Asn Asn Gly
 35 40 45
 Ser Ser Thr Ile Asn Asp Asp Gln Gln Ser Gly Tyr Lys Ser Asn Arg
 50 55 60
 Asp Ser Lys Ser Ser Ile Ser Arg Asn Gln Thr Glu Asp Asn Gln Gln
 65 70 75 80
 Asp Thr Gln Gln Asp Thr His Ser Asn Arg Tyr Tyr Ala Gln Val Trp
 85 90 95
 Leu Thr Ala Leu Asp Ser Tyr Arg Gly Glu Ser Asp Leu Pro Phe Asp
 100 105 110
 Asp Leu Glu Ile Val His Gln Asn Ile Ser Asn Lys Val Leu Asp Pro
 115 120 125
 Tyr His Pro Asp Glu Ser Ala Lys Leu Pro Glu Gly Thr Glu Leu Leu
 130 135 140
 Thr Ala Ser Val Thr Ala Ala Gly Ser Val Tyr Tyr Lys Ser Asn Gly
 145 150 155 160
 Asp Gly Thr Ile Thr Ile Tyr Ser Val Pro Ser His Phe Gln Gly Ser
 165 170 175
 Trp Arg Asp Ala Asp Tyr Ser Lys Arg Glu Ser Gln Arg Ile Ile Asp
 180 185 190
 Asp Ala Arg Thr Val Lys Leu Tyr Asn Ala Ser Glu Ser Glu Ile Asn
 195 200 205
 Lys Ile Ser Gln Met Met Arg Thr Glu Phe Ser Val Gly Asp Asn Leu
 210 215 220
 Thr Asp Glu Asp Asp Thr Ser Glu Ser Glu Asp Gln Ser Ser Ser Ser
 225 230 235 240
 Asp Glu Val Thr Val Thr Arg Ser Asn Val Ile Asp Ile Val Glu Asp
 245 250 255
 Tyr Glu Gly His Gln Leu Asp Thr Asp Thr Tyr Ile Tyr Lys Glu Pro
 260 265 270
 Glu Lys Asp Ser Asp Gly Ser Trp Gly Phe Ser Phe Thr Asp Lys Glu
 275 280 285
 Gly His Leu Glu Gly Ser Tyr Ile Ile Asp Lys Asp Gly Glu Val Thr
 290 295 300
 Lys Tyr Asp Glu Asp Gly Glu Pro Glu
 305 310

<210> 4755
 <211> 40
 <212> PRT
 <213> S.epidermidis

<400> 4755

Asn Asn Tyr Lys Leu Thr Ile Phe Lys Asn Val Gln Gln Phe Asn Lys
 1 5 10 15

Phe Leu Lys Ile Arg Tyr Leu Arg Ser Asn Thr Cys Arg Leu Phe Tyr
 20 25 30
 Cys Tyr Ile Ile Ser Asn Gly Leu
 35 40

<210> 4756
 <211> 43
 <212> PRT
 <213> S.epidermidis

<400> 4756
 Lys Asn Tyr Lys Lys Asp Asn Phe Tyr Ile Ile Ser Ile Glu Ile Val
 1 5 10 15
 Phe Ile Tyr Leu Ser Trp Thr Phe Leu Ser Gln Pro Leu His Phe Tyr
 20 25 30
 Asn Ile Thr Ile Leu Phe Phe Ile Asn His Ile
 35 40

<210> 4757
 <211> 413
 <212> PRT
 <213> S.epidermidis

<400> 4757
 Asn Val Tyr Asn Arg Cys Tyr Asn Phe Ser Arg Arg Ile Met Met Met
 1 5 10 15
 Thr Thr Ser Ser Lys His Leu Ser Lys Ile Leu Ile Val Ile Leu Gly
 20 25 30
 Val Met Thr Ala Phe Gly Pro Leu Thr Ile Asp Met Tyr Gly Pro Ser
 35 40 45
 Leu Pro Lys Val Gln His Ala Phe Gly Ser Ser Ile Ser Glu Ile Gln
 50 55 60
 Leu Thr Leu Ser Phe Ala Met Ile Gly Leu Ala Ile Gly Gln Phe Val
 65 70 75 80
 Phe Gly Pro Leu Ser Asp Val Leu Gly Arg Lys Lys Met Ala Leu Ile
 85 90 95
 Leu Leu Ile Gly Tyr Leu Ile Ala Ser Leu Leu Ser Val Phe Thr Val
 100 105 110
 His Leu Thr Ile Phe Leu Ile Ile Arg Leu Ile Gln Gly Leu Ala Gly
 115 120 125
 Gly Gly Ala Ile Val Ile Ala Lys Ala Ser Ile Gly Asp Asn Tyr Asp
 130 135 140
 Gly Asn Lys Leu Ala Lys Phe Leu Thr Ser Leu Met Val Ile Asn Gly
 145 150 155 160
 Ile Ile Thr Ile Ile Ala Pro Leu Leu Gly Gly Leu Ala Leu Ser Ile
 165 170 175
 Ala Ser Trp Lys Met Ile Phe Ile Phe Leu Thr Ile Ile Thr Leu Ile
 180 185 190
 Val Ile Leu Gly Ile Leu Leu Lys Met Pro Val Gly Leu His Gln Lys
 195 200 205
 Gln Ser Gln Leu Asn Phe Lys Ala Ile Phe Lys Asp Phe Gly Leu Leu
 210 215 220
 Leu Thr Lys Pro Thr Phe Val Ile Pro Met Leu Leu Gln Gly Leu Thr
 225 230 235 240
 Tyr Val Met Leu Phe Ser Tyr Leu Ser Ala Ala Pro Phe Ile Ser Gln
 245 250 255

Lys Met Tyr His Met Thr Pro Leu Gln Tyr Ser Ala Met Phe Ala Ile
 260 265 270
 Asn Gly Val Gly Leu Ile Val Val Ser Gln Ile Thr Ala Ile Ile Val
 275 280 285
 Glu Lys Ile Ser Arg Tyr Ala Met Leu Ile Tyr Leu Thr Ile Ile Gln
 290 295 300
 Met Leu Gly Val Val Ile Leu Ile Phe Thr Leu Thr Leu His Leu Pro
 305 310 315 320
 Leu Tyr Val Leu Leu Ile Gly Phe Phe Ile Asn Ile Cys Pro Val Thr
 325 330 335
 Ser Ile Ala Pro Leu Cys Phe Ser Met Ala Met Ala Glu Arg Thr Gly
 340 345 350
 Gly Ser Gly Asn Ala Ser Ser Leu Gly Leu Phe Gln Phe Ile Leu
 355 360 365
 Gly Gly Leu Ile Ser Pro Leu Val Gly Leu Asn Gly Gln His Asp Met
 370 375 380
 Ser Pro Tyr Leu Ile Ile Ile Ser Ala Thr Ala Val Leu Leu Ile Ala
 385 390 395 400
 Leu Gln Ile Ile Tyr Phe Lys Leu Phe Met Lys Asn Thr
 405 410

<210> 4758
 <211> 79
 <212> PRT
 <213> S.epidermidis

<400> 4758
 Ile Pro Tyr Lys Gly Val Tyr Ile Phe Arg His Phe Phe Asn Ser Tyr
 1 5 10 15
 Ile Leu Lys Leu Ile Tyr Ser Asn Ser Met Tyr Phe Ser Ser Leu Leu
 20 25 30
 Phe Arg His Leu Leu Gln Asn Asn Ile Ile Glu Ile Lys Lys Ser Leu
 35 40 45
 Asp Ile His Leu Pro Cys Val Gln Thr Leu Asn His Ala His Ser Ile
 50 55 60
 Leu Leu Ile Gln Ser Ser Ser Tyr Leu Tyr Leu Phe Lys Pro Phe
 65 70 75

<210> 4759
 <211> 228
 <212> PRT
 <213> S.epidermidis

<400> 4759
 Cys Arg Tyr Lys Asp Val Phe Lys Leu Leu Leu Lys Val Glu His Leu
 1 5 10 15
 Thr Tyr Lys Val Asp Asn Arg Thr Ile Leu Asp Asp Ile Asn Leu Asn
 20 25 30
 Ile Asn Lys Gly Asp Thr Ile Ala Ile Val Gly Pro Ser Gly Ser Gly
 35 40 45
 Lys Ser Thr Leu Leu Lys Gln Leu Asn His Leu Ile Ser Pro Thr Ser
 50 55 60
 Gly Asp Leu Tyr Leu Asn Asp Gln Ser Tyr Phe Asn Tyr Lys Pro Glu
 65 70 75 80
 Glu Ile Arg Thr Arg Val Ser Tyr Leu Met Gln Gln Ser Glu Leu Ile
 85 90 95

Gly Tyr Thr Ile Glu Asp Asn Met Lys Phe Pro Ala Glu Ala Arg Ser
 100 105 110
 Glu Ala Phe Asp Arg Asp Lys Ala Lys Gln Leu Ile Ser Gln Val Gly
 115 120 125
 Leu Gly Asn Tyr Gln Leu Asp Ala Gln Ile Glu His Met Ser Gly Gly
 130 135 140
 Glu Gln Gln Arg Ile Thr Ile Ala Arg Gln Leu Met Tyr Glu Pro Glu
 145 150 155 160
 Val Leu Leu Leu Asp Glu Ala Thr Ser Ala Leu Asp Thr His Asn Lys
 165 170 175
 Lys Lys Ile Glu Glu Ile Ile Phe Lys Leu Ala Asp Lys Gly Ile Ala
 180 185 190
 Ile Leu Trp Ile Thr His Ser Asp Gln Ser Met Arg His Phe Lys
 195 200 205
 Arg Arg Ile Thr Ile Thr Asp Gly Lys Ile Ser Ser Asp Glu Glu Leu
 210 215 220
 Asn Gly Asn Glu
 225

<210> 4760
 <211> 105
 <212> PRT
 <213> S.epidermidis

<400> 4760
 Ile Thr Tyr Lys Ser Leu Arg Met Leu Leu Phe Ile Gly Gly Pro Ile
 1 5 10 15
 Met Asp Lys Ile Asn Lys Glu Asp Thr Asp Thr Lys Lys Asp Ser Asn
 20 25 30
 Asn Asn Tyr Lys His Gln Asn Asp His Ile Asp Arg Gln Gly Leu Asn
 35 40 45
 Gly Tyr Gln Lys Thr Asp Leu Asp Leu Glu Ile Glu Arg Glu Leu Gln
 50 55 60
 Glu Met Met Glu Asn Gly Glu Ser Asn Lys Glu Thr Lys Ser Lys His
 65 70 75 80
 Phe Lys Ile Leu Ser Phe Val Ser Met Ile Val Ile Val Val Ile Ala
 85 90 95
 Ile Ile Arg Phe Ile Gln Lys Thr Ile
 100 105

<210> 4761
 <211> 45
 <212> PRT
 <213> S.epidermidis

<400> 4761
 Ile Lys His Asn Val Asn Pro His Leu Ile Phe Asn Ile Ile Lys Arg
 1 5 10 15
 Asn Ile Phe Phe Ile Lys Asn Lys Ser Thr Tyr Ile Gly Leu Phe His
 20 25 30
 Ile Phe Ile Val Tyr Ile Lys Thr Arg Leu Asn Gln Leu
 35 40 45

<210> 4762
 <211> 45
 <212> PRT

<213> S.epidermidis

<400> 4762

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Ser Phe Asn Lys Gly Ile Glu Leu Met Ser Leu Leu Thr Lys Lys Thr
1          5          10          15
Ala Ile Asn Ser Tyr Ser Phe Ile Ser Tyr Met Asn Lys Gln Ser Ile
          20          25          30
Thr Phe Phe Tyr Arg Lys Pro Ile Pro Phe Met Asn Gly
          35          40          45
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<210> 4763

<211> 98

<212> PRT

<213> S.epidermidis

<400> 4763

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Gln Leu Asn Lys Ala Tyr Lys Asn Asn Leu Met Ala Lys Thr Asn Lys
1          5          10          15
Ser Gly Thr Arg Ile Phe Tyr Val Pro Asp Leu Leu Tyr Val Tyr Thr
          20          25          30
Asp Ser Tyr Glu Met Ser Pro Thr Gln Arg Ile Ser Glu Glu Ile Pro
          35          40          45
Arg Thr Lys Gln Val Gly Val Gly Ala Pro Thr Glu Arg Ile Ser Glu
          50          55          60
Glu Ile Pro Arg Thr Lys Gln Val Gly Val Gly Glu Lys Thr Gly Asp
65          70          75          80
Asn Glu Phe Tyr Pro Ser Leu Ala Phe Ile Leu Ile Arg Gly Ile Leu
          85          90          95
Gln Ser
```

<210> 4764

<211> 47

<212> PRT

<213> S.epidermidis

<400> 4764

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Leu Lys Asn Lys Ser Gln Thr Leu Gly Glu Thr Val Met Ser Phe Tyr
1          5          10          15
Glu Arg Val Leu Lys Leu Gly Glu Asn Asn His Arg Thr Ala Phe Glu
          20          25          30
Phe Arg Phe Glu Glu Leu Phe Ser Asn Glu Glu Trp Cys Ala Leu
          35          40          45
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<210> 4765

<211> 270

<212> PRT

<213> S.epidermidis

<400> 4765

```
Gly Trp Asn Lys Val Thr Thr Pro Thr Thr His Lys Tyr Asn Arg Tyr
1          5          10          15
Leu Asn Lys Arg Met Ser Leu Lys Thr Ser Phe Ser Ile Ile Leu Ile
          20          25          30
Thr Gly Leu Ile Ile Trp Ser Phe Ile Tyr Thr Gly Phe Ser Ile Gly
          35          40          45
```

Asp Leu Met Ile Gly Leu Pro Gln Ile Gly Val Phe Phe Lys Gln Met
 50 55 60
 Ile Pro Pro Asp Trp Gly Tyr Leu Asp His Ile Thr Gln Pro Met Leu
 65 70 75 80
 Asp Thr Ile Arg Met Ala Ile Val Gly Thr Phe Leu Gly Ser Ile Val
 85 90 95
 Ser Ile Pro Ile Ala Leu Leu Cys Ala Ser Asn Ile Val Gln Thr Lys
 100 105 110
 Trp Ile Ala Ile Pro Ser Arg Phe Val Leu Asn Ile Val Arg Thr Ile
 115 120 125
 Pro Asp Leu Leu Leu Ala Ala Val Phe Val Ala Ile Phe Gly Ile Gly
 130 135 140
 Gln Ile Pro Gly Val Leu Ala Leu Phe Val Leu Thr Ile Cys Ile Ile
 145 150 155 160
 Gly Lys Leu Leu Tyr Glu Ser Leu Glu Thr Ile Asp Pro Gly Pro Met
 165 170 175
 Glu Ala Met Thr Ala Val Gly Ala Asn Lys Val Lys Trp Ile Ala Phe
 180 185 190
 Gly Val Val Pro Gln Ala Ile Ser Ser Phe Met Ser Tyr Val Leu Phe
 195 200 205
 Ala Phe Glu Ile Asn Ile Arg Ala Ser Ala Val Leu Gly Leu Val Gly
 210 215 220
 Ala Gly Gly Ile Gly Leu Phe Tyr Asp Gln Thr Leu Gly Leu Phe Gln
 225 230 235 240
 Tyr Lys Lys Thr Ala Met Ile Ile Leu Phe Thr Leu Ile Ile Val Val
 245 250 255
 Ile Ile Asp Tyr Val Ser Ser Lys Val Arg Glu Lys Leu Ala
 260 265 270

<210> 4766

<211> 76

<212> PRT

<213> S.epidermidis

<400> 4766

Arg Gly Asp Lys Val Ser Phe Tyr His Phe Ile Gln Asn Phe Val Gly
 1 5 10 15
 Asp Glu Thr Pro Leu Gly Lys Leu Ala Thr Cys Ile Asn Gln Asp Glu
 20 25 30
 Asp Leu Pro Met Glu Glu Thr Thr Ala His Asn Ile Leu Asn Tyr Phe
 35 40 45
 Asn Gln Leu Asn Tyr Phe Asp Asp Asp Cys Ile Glu Ala Val Lys Arg
 50 55 60
 Ser Leu Ser Leu Tyr Glu Gln Ser Lys Val Ala Leu
 65 70 75

<210> 4767

<211> 878

<212> PRT

<213> S.epidermidis

<400> 4767

Lys Gly Asp Asn Ser Met Ser Lys Ser Tyr Ala Lys Phe Tyr Lys Cys
 1 5 10 15
 Ala Leu Gln Val Asn Pro Tyr Ser Tyr Ile Lys Tyr Arg Gly Leu Glu
 20 25 30

His	Glu	Met	Thr	Glu	Glu	Gln	Tyr	Asn	Glu	Ser	Ile	Tyr	Gln	Tyr	Cys
		35					40					45			
Lys	Thr	Asn	Asn	Ile	Ser	Ile	Ile	Gly	Leu	Ala	Asp	His	Gly	Asn	Val
	50					55					60				
Asp	Asn	Ser	Ser	Lys	Leu	Arg	Gln	Tyr	Leu	Val	Ser	Lys	Gly	Ile	Leu
65				70						75					80
Val	Phe	Pro	Gly	Phe	Glu	Ile	Ser	Thr	Ser	Glu	Lys	Val	His	Ile	Val
			85					90						95	
Cys	Leu	Phe	Ser	Glu	Asn	Thr	Glu	Glu	Arg	Glu	Leu	Glu	Arg	Tyr	Leu
			100				105						110		
Gly	Glu	Leu	Gly	Leu	Ser	Asn	Leu	Glu	Glu	Gly	Asn	Ser	Pro	Ser	Thr
	115						120					125			
Leu	Ser	Phe	His	Glu	Ile	Thr	Gln	Lys	Val	Leu	Asp	Arg	Gly	Gly	Phe
	130					135					140				
Trp	Tyr	Ala	Ala	His	Val	Thr	Ser	Asp	Asn	Gly	Ile	Leu	Lys	Gly	Lys
145					150					155					160
His	Asn	Asn	Leu	Trp	Gln	Ser	Asp	Lys	Leu	Ile	Ala	Ala	Gln	Ile	Pro
			165						170					175	
Ser	Lys	Lys	Asn	Glu	Val	Asp	Pro	Lys	Tyr	Thr	Ser	Ile	Leu	Lys	Asn
			180					185					190		
Lys	Asp	Pro	Asn	Tyr	Gln	Lys	Gln	Thr	Pro	Phe	Ala	Leu	Ile	Asn	Ala
	195						200					205			
Lys	Asp	Ile	Ser	Lys	Pro	Glu	Asp	Leu	Ala	Leu	Asp	Thr	Ser	Ser	Cys
	210					215					220				
Leu	Ile	Lys	Met	Ser	Lys	Leu	Asn	Phe	Glu	Ser	Phe	Lys	Leu	Ala	Phe
225					230					235					240
Arg	Asp	Pro	Asp	Ala	Arg	Val	Lys	Leu	Asn	Ser	Asp	Ile	Asn	Asn	Lys
			245						250					255	
Phe	Pro	His	Ser	Ser	Ile	Asp	Lys	Ile	Lys	Ile	Ser	Met	Gly	Tyr	Leu
			260					265					270		
Asp	Asn	Leu	Ser	Leu	Asp	Leu	Ser	Ser	Asn	Leu	Asn	Thr	Ile	Ile	Gly
		275					280					285			
Gly	Arg	Gly	Thr	Gly	Lys	Ser	Thr	Leu	Ile	Glu	Leu	Ile	Arg	Tyr	Ala
	290					295					300				
Leu	Asp	Ile	Ala	Pro	Thr	Ser	Gln	Asn	Thr	Asn	Thr	Ser	Phe	Glu	Asn
305					310					315					320
Ile	Cys	Lys	Ser	Asn	Leu	Gly	Ile	Gly	Gly	Lys	Val	Glu	Leu	Ile	Val
				325					330					335	
Thr	Ser	His	Ala	Gln	Tyr	Gly	Lys	Gln	Phe	Lys	Ile	Ile	Lys	Arg	Tyr
			340					345					350		
Asn	Glu	Asp	Pro	Ile	Ile	Lys	Asp	Ile	Asp	Asn	Asn	Val	Ser	Asn	Tyr
		355					360					365			
Thr	Val	Lys	Asp	Ile	Leu	Pro	Asn	Ile	Glu	Val	Tyr	Ser	Gln	Asn	Glu
	370					375					380				
Ile	Ile	Asp	Leu	Thr	Thr	Asn	Glu	Asn	Ala	Lys	Leu	Asn	Ile	Leu	Asn
385					390					395					400
Arg	Phe	Leu	Asp	Lys	Asp	Asp	Arg	Ser	Asn	Asp	Lys	Lys	Glu	Glu	Ile
				405					410					415	
Lys	Thr	Asn	Leu	His	Ser	Asn	Ser	Lys	Ser	Leu	Ile	Lys	Ala	Lys	Glu
			420					425					430		
Asp	Leu	Glu	Asn	Leu	Gln	Glu	Lys	Ile	Asn	Gln	Leu	Pro	Lys	Leu	Lys
		435					440					445			
Glu	Lys	Leu	Lys	His	Phe	Asn	Glu	Leu	Gly	Ile	Gly	Lys	Lys	Leu	Glu
	450					455					460				
Val	Gln	Gly	Lys	Ile	Ser	Arg	Glu	Glu	Gln	Tyr	Ile	Gln	Asn	Thr	Lys
465					470					475					480

Gln Ile Ile Glu Asp Asn Asp Ile Ser Ile Thr Asn Ile Ile Leu Pro
 485 490 495
 Phe Asn Glu Asn Tyr Asn Gln Gln Ile Lys His Val Glu Ile Phe Asp
 500 505 510
 Ser Ile Lys Asn Ile Thr Asp Asn His Asn Lys Lys Leu Lys Glu Ile
 515 520 525
 Lys Ser Met Phe Thr Asp Leu Lys Asp Thr Thr Gln Asn Glu Ile Glu
 530 535 540
 Lys Ile Tyr Asn Val Trp Lys Glu Lys Lys Lys Asn Ile Glu Lys Glu
 545 550 555 560
 Ile Asn Arg Ala Ile Lys Ser Leu Asp Asp Ile Glu Gly Lys Thr Lys
 565 570 575
 Glu Asp Ile Ala His Glu Tyr Thr Glu Thr Gln Lys Gln Ile Thr Ser
 580 585 590
 Ile Glu Pro Leu Glu Thr Gln Leu Ser Arg Val Lys Thr Ser Ile Glu
 595 600 605
 Thr Leu Glu Asn Glu Arg Ile Gln Leu Lys Glu Asp Leu Lys Glu Ile
 610 615 620
 Phe Asp Glu Gln Leu Lys Asn Leu Asn Arg Cys Val Lys Lys Ile Asn
 625 630 635 640
 Asn Arg Tyr Leu Lys Lys Gln Val Asn Ile Lys Ile Gln Pro Tyr Ala
 645 650 655
 Asn Val Asn Asn Leu Ile Glu Phe Leu Lys Glu Glu Asn Gly Leu Gly
 660 665 670
 Asp Ser Thr Leu Lys Trp Ile Lys Asn His Gln Ser Phe Asn Phe Pro
 675 680 685
 Lys Phe Ile Lys Leu Ile Lys Asp Arg Asp Ser Glu Ala Ile Tyr Glu
 690 695 700
 Glu Tyr Lys Asp Ser Gly Leu Lys Lys His Thr Ala Asp Ile Leu Ser
 705 710 715 720
 Asn Met Leu Tyr Glu Arg Ile Leu Lys Leu Glu Ser Ile Glu Leu Glu
 725 730 735
 Asn Ile Ile Asp Ile Arg Leu Asn Val Gly Ser Asp Lys Asp Thr Lys
 740 745 750
 Phe Arg Ser Leu Asn His Leu Ser Lys Gly Gln Gln Cys Thr Ala Ile
 755 760 765
 Leu Asn Leu Leu Thr Leu Ser Asn Asn Asp Pro Leu Leu Val Asp Gln
 770 775 780
 Pro Glu Asp Asn Leu Asp Asn Ser Phe Ile Thr Asn Asn Leu Val Glu
 785 790 795 800
 Asn Ile Arg Lys Leu Lys Ile Asn Arg Gln Phe Ile Phe Ala Thr His
 805 810 815
 Asn Ala Asn Ile Pro Val Phe Gly Asp Ala Glu Leu Ile Val Thr Met
 820 825 830
 Glu Asn Glu Asn Gly Gln Gly Ser Val Asn Asn Glu Asn Leu Gly Ser
 835 840 845
 Ile Asp Asn Thr Leu Val Arg Asn Ser Val Ile Gln Ile Leu Glu Gly
 850 855 860
 Gly Asp Val Ala Phe Lys Met Arg Lys Asn Lys Tyr Gly Leu
 865 870 875

<210> 4768

<211> 336

<212> PRT

<213> S.epidermidis

<400> 4768

Gly Ser Cys Lys Met Ser Arg Tyr Glu Arg Gln Thr Arg Phe Ala Pro
 1 5 10 15
 Phe Gly Glu Glu Gly Gln Gln Lys Leu Ser Ser Ser Gln Ile Leu Ile
 20 25 30
 Phe Gly Ala Gly Ala Leu Gly Ser His Ile Val Asp Gln Leu Ala Arg
 35 40 45
 Met Gly Ala His His Ile Ala Ile Val Asp Met Asp Ile Val Glu Ile
 50 55 60
 Ser Asn Leu His Arg Gln Thr Leu Phe Asp Glu Glu Asp Ala His Thr
 65 70 75 80
 Leu Ile Ser Lys Val Glu Ala Ile Lys His Lys Val Asn Gln Ile Asn
 85 90 95
 Ile Asn Val Asn Leu Thr Thr Tyr Asp Leu Glu Val Thr Ser Ser Asn
 100 105 110
 Ile Glu Asn Leu Ile Lys Asn Val Glu Pro Asp Ile Ile Ile Asp Gly
 115 120 125
 Met Asp Asn Phe Lys Ile Arg Tyr Leu Ile Asn Glu Val Cys His Lys
 130 135 140
 Tyr Gln Ile Pro Trp Val Tyr Gly Ala Ala Val Gly Ser Lys Gly Ser
 145 150 155 160
 Val Tyr Gly Ile Asp His Gln Gly Pro Cys Leu Lys Cys Leu Leu Gln
 165 170 175
 Thr Ile Pro Asp Thr Gly Glu Ser Cys Ala Ile Asn Gly Val Ile Pro
 180 185 190
 Pro Val Ile Ser Met Ile Ala Ser Tyr Glu Val Ala Glu Ala Val Arg
 195 200 205
 Tyr Leu Ser Gly Lys Gly Phe Ser Lys Gln Leu Ile Thr Ile Asp Ala
 210 215 220
 Phe Asn Ile Asn Tyr Lys Ser Met Asn Val Asp Ala Leu Lys Asn Lys
 225 230 235 240
 Asp Cys Pro Val Cys Glu Lys His Glu Tyr Thr Leu Leu Glu Ser Gln
 245 250 255
 Gln Glu Arg Thr Ile Glu Asp Leu Cys Gly Asn Ala Tyr Leu Phe Arg
 260 265 270
 Phe Pro Pro Lys Ala Phe Lys His Ala Ala His Phe Pro Gly Asn Met
 275 280 285
 Val Lys Ser Thr Ser Phe Ala Lys Leu Ile Gln Tyr Gln Thr Tyr Glu
 290 295 300
 Phe Thr Leu Phe Lys Asp Gly Arg Met Asn Ala Tyr Gly Ile His Asn
 305 310 315 320
 Asp Glu Glu Ala His His Leu Tyr Asn Thr Leu Leu Lys Ser Ile Arg
 325 330 335

<210> 4769

<211> 315

<212> PRT

<213> S.epidermidis

<400> 4769

Leu Arg Cys Asn Ile Ser Lys Glu Arg Cys Ile Met Ile Lys Ile Ile
 1 5 10 15
 Ala Thr Ile Ile Val Ser Thr Leu Ile Leu Gly Ser Cys Ser Thr Met
 20 25 30
 Asn Glu Glu Glu Asn Tyr Ala Ser Gln Ser Ile Pro Ala Ser Gln Tyr
 35 40 45

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<210> 4770
<211> 52
<212> PRT
<213> S.epidermidis

<400> 4770
Gln Gln Ser Asn Ala Thr Gln Asn Phe Phe Val Ile Ile Ile Leu Ile
1          5          10          15
Asn Ile Ile Leu Tyr Asn Lys Asn Lys Arg Phe Gln Gln Asn Lys Asp
          20          25          30
Lys Ile Ile Thr Tyr Ala Asn Ile Lys Ile Asn Asp Leu Phe Ile Phe
          35          40          45
Lys Lys Tyr Lys
          50

<210> 4771
<211> 51
<212> PRT
<213> S.epidermidis

<400> 4771

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Val Leu Phe Asn Leu Ser Ile Ser Cys Thr Ile Lys Leu Asn Arg Asp
 1 5 10 15
 Tyr Phe Lys Arg Ile Val Ser Ile Ile Gly Gly Lys His Gly Arg Lys
 20 25 30
 Asn Trp Phe Asp Arg His Trp Phe Gln His Asp Ser Thr Cys Tyr Ile
 35 40 45
 Trp Leu Gln
 50

<210> 4772

<211> 46

<212> PRT

<213> S.epidermidis

<400> 4772

Ile Thr Ile Lys Leu Met Ser Met Gly Cys Ser Thr Met Thr Asp Leu
 1 5 10 15
 Lys Ile Asn Asp Met Asp Ile Ala Glu Ile Asn Gly Phe Trp Val Tyr
 20 25 30
 Gln Asn Thr Lys Asn Lys Lys Phe Thr Val Asn Gly Lys Asn
 35 40 45

<210> 4773

<211> 62

<212> PRT

<213> S.epidermidis

<400> 4773

Asn Leu Ile Lys Met Glu Val Ile Leu Leu Asn Ile Lys Lys His Trp
 1 5 10 15
 Leu Pro Ile Val Val Val Ile Leu Val Val Val Ile Phe Leu Leu Val
 20 25 30
 Thr Phe Ala Arg Ala Asn Glu Gly Leu Asp Asn Tyr Glu Gln His Glu
 35 40 45
 Leu Asn Asn Gly Glu Gln Gln Tyr Leu Ser Lys Gly Ala Ser
 50 55 60

<210> 4774

<211> 506

<212> PRT

<213> S.epidermidis

<400> 4774

Lys Phe Asn Lys Leu Asn Gly Gly Arg Leu Met Glu Leu Val Asp Lys
 1 5 10 15
 Leu Ser Asn Arg Gln Tyr Ile Asp Gly Glu Trp Val Glu Ser Ser Asn
 20 25 30
 Lys Asn Thr Arg Asp Ile Ile Asn Pro Tyr Asn Gln Glu Thr Ile Phe
 35 40 45
 Thr Val Ala Glu Gly Thr Lys Glu Asp Val Glu Arg Ala Ile Leu Ala
 50 55 60
 Ala Arg Arg Ser Phe Glu Asp Gly Glu Trp Ser Leu Glu Thr Ser Glu
 65 70 75 80
 Val Arg Gly Lys Lys Val Arg Ala Val Ala Asp Lys Ile Lys Glu Asn
 85 90 95
 Arg Glu Glu Leu Ala Lys Leu Glu Thr Leu Asp Thr Gly Lys Thr Leu

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<210> 4775
<211> 51
<212> PRT
<213> S.epidermidis
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[illegible]

<211> 462

<213> S.epidermidis

Ile	Ile	Asn	Lys	Arg	Lys	Lys	Gly	Asn	Ala	Met	Phe	Gly	Glu	Ile	Trp
1				5					10					15	
Pro	Leu	Ile	Ser	Val	Val	Leu	Gly	Ile	Ile	Ile	Leu	Leu	Thr	Leu	Ile
			20					25					30		
Ile	Gly	Leu	Lys	Leu	Asn	Thr	Phe	Ile	Ser	Leu	Ile	Ile	Thr	Ser	Met
		35					40					45			
Ile	Thr	Ala	Leu	Leu	Leu	Gly	Met	Pro	Leu	Asn	Lys	Ile	Met	Glu	Thr
	50					55					60				
Ile	Glu	Asn	Gly	Met	Gly	Ser	Thr	Leu	Gly	His	Ile	Ala	Leu	Ile	Phe
65					70					75					80
Gly	Leu	Gly	Ala	Ile	Leu	Gly	Lys	Leu	Leu	Ala	Asp	Gly	Gly	Gly	Ala
				85					90					95	
Thr	Arg	Ile	Ala	Asp	Thr	Leu	Ile	Ala	Lys	Phe	Gly	Gln	Lys	His	Val
			100					105					110		
Gln	Trp	Ala	Met	Leu	Ile	Ala	Ala	Phe	Ile	Val	Gly	Ile	Ala	Leu	Phe
		115					120					125			
Phe	Glu	Val	Gly	Leu	Val	Leu	Leu	Ile	Pro	Leu	Val	Phe	Thr	Val	Ala
	130					135					140				
Lys	Arg	Ala	Asn	Val	Ser	Ile	Leu	Lys	Leu	Gly	Leu	Pro	Met	Val	Thr
145					150					155					160
Ala	Leu	Ser	Val	Thr	His	Gly	Phe	Leu	Pro	Pro	His	Pro	Gly	Pro	Val
				165					170					175	
Val	Ile	Ala	Lys	Glu	Leu	Lys	Ala	Asn	Ile	Gly	Glu	Val	Leu	Leu	Tyr
			180					185					190		
Gly	Met	Ile	Ile	Ala	Ile	Pro	Val	Thr	Leu	Ile	Ala	Gly	Pro	Ile	Phe
		195					200					205			
Asn	Arg	Phe	Ala	Gln	Lys	Met	Val	Pro	Thr	Ala	Tyr	Thr	Arg	Glu	Gly
	210					215					220				
Asp	Ile	Ser	Ser	Leu	Gly	Thr	Gln	Lys	Glu	Phe	Lys	Glu	Glu	Glu	Met
225					230					235					240
Pro	Gly	Phe	Gly	Ile	Ser	Leu	Leu	Thr	Ala	Ile	Leu	Pro	Val	Ile	Leu
				245					250					255	
Met	Leu	Ile	Ser	Thr	Ile	Val	Gln	Leu	Ile	Thr	Gly	His	Glu	Glu	Ala
			260					265					270		
Thr	Asn	Val	Phe	Glu	Gln	Ile	Val	Tyr	Phe	Ile	Gly	Thr	Ala	Gly	Thr
	275						280					285			
Ala	Leu	Leu	Ile	Ala	Val	Ile	Phe	Ala	Ile	Phe	Thr	Met	Gly	Met	Lys
	290					295					300				
Gln	Gln	Arg	Lys	Met	Glu	Asp	Ile	Met	Lys	Ser	Val	Thr	His	Ala	Ile

305 310 315 320
 Tyr Pro Ile Gly Met Met Leu Leu Ile Ile Gly Gly Gly Gly Thr Phe
 325 330 335
 Lys Gln Val Leu Ile Asp Gly Gly Val Gly Asp Thr Ile Ala Lys Met
 340 345 350
 Phe Glu Gly Thr Ser Met Ser Pro Ile Leu Leu Ala Trp Ile Val Ala
 355 360 365
 Ala Val Leu Arg Ile Ser Leu Gly Ser Ala Thr Val Ala Ala Val Ser
 370 375 380
 Thr Thr Gly Ile Val Leu Pro Leu Leu Glu His Ser Asp Val Asn Val
 385 390 395 400
 Ala Leu Val Val Leu Ala Ile Gly Ala Gly Ser Val Ile Leu Ser His
 405 410 415
 Val Asn Asp Ala Gly Phe Trp Met Phe Lys Glu Tyr Phe Gly Leu Thr
 420 425 430
 Val Lys Glu Thr Phe Leu Thr Trp Ser Leu Leu Glu Thr Ile Ile Ser
 435 440 445
 Val Ser Gly Ile Ile Phe Ile Leu Phe Ile Gly Leu Phe Val
 450 455 460

<210> 4777
 <211> 164
 <212> PRT
 <213> S.epidermidis

<400> 4777
 Ser Gln Cys Lys Leu Leu Ile Phe Val Ser Asn Leu Pro Pro Gln Val
 1 5 10 15
 Val His His Phe Asn Phe Lys Leu Arg Arg Asp Leu Ser Met Lys Leu
 20 25 30
 Ser Ile Phe His Asp Gly Gln Phe Val Gly Val Val Glu Tyr Gln
 35 40 45
 Glu Gly Phe Ile His Lys Tyr Leu Lys Val Thr Phe Gly Asn Glu Pro
 50 55 60
 Ser Asp Glu Thr Val Leu Arg Phe Ile Thr Phe Lys Leu Ile Pro Leu
 65 70 75 80
 Leu Asn Gln Thr His Cys Lys Lys Lys Pro Ile Gln Lys His Lys Lys
 85 90 95
 Ile Asn Pro Lys Arg Leu Gln Arg Lys Ile Ala Lys Glu Gln Lys Glu
 100 105 110
 Thr Asn Leu Thr Thr Phe Ala Gln Gln Ala Ile Lys Glu Glu Gln Glu
 115 120 125
 Leu Asn Lys Leu Lys Ser Lys Lys Leu Gln Arg Leu Glu Lys Glu Arg
 130 135 140
 His Arg Gln Tyr Lys Arg Met Leu Lys Arg Lys Lys Ala His Glu Lys
 145 150 155 160
 His Lys Gly His

<210> 4778
 <211> 300
 <212> PRT
 <213> S.epidermidis

<400> 4778
 Tyr Met Arg Lys Val Leu Ile Phe Ala Ile Ala Gly Phe Leu Ala Gln

1 5 10 15
 Leu Val Asp Gly Ser Leu Gly Met Gly Phe Gly Ala Ser Ser Ser Ser
 20 25 30
 Ile Leu Leu Thr Tyr Gly Ile Ala Pro Ala Val Val Ser Ala Thr Val
 35 40 45
 His Phe Ser Glu Ile Ala Thr Thr Ala Ala Ser Gly Thr Ser His Trp
 50 55 60
 Arg Phe Asp Asn Val His Lys Pro Thr Met Leu Lys Leu Ala Ile Pro
 65 70 75 80
 Gly Ser Ile Ser Ala Phe Ile Gly Ala Gly Val Leu Thr Phe Ile His
 85 90 95
 Gly Asp Tyr Ile Lys Pro Phe Ile Ala Leu Phe Leu Leu Ser Met Gly
 100 105 110
 Phe Tyr Ile Leu Tyr Gln Phe Leu Phe Lys Arg Ala His Glu His His
 115 120 125
 His His Val Gly Asn Leu Ser Ser Phe Lys Val Ile Pro Gln Gly Phe
 130 135 140
 Val Ala Gly Phe Leu Asp Ala Ile Gly Gly Gly Gly Trp Gly Pro Val
 145 150 155 160
 Asn Thr Pro Leu Leu Leu Ser Ser Lys Lys Ile Gln Pro Arg Tyr Ala
 165 170 175
 Ile Gly Thr Val Ser Ala Ser Glu Phe Phe Val Thr Ser Ser Ala Ala
 180 185 190
 Leu Ser Phe Ile Ile Phe Leu Gly Val Thr Gln Ile Asn Trp Phe Ala
 195 200 205
 Val Ile Ala Leu Ser Leu Gly Gly Met Val Ala Ala Pro Ile Ser Ala
 210 215 220
 Tyr Leu Val Lys Val Leu Pro Ile Asn Ile Leu Ala Ile Cys Val Gly
 225 230 235 240
 Gly Leu Ile Ile Phe Thr Asn Ser Asn Ala Leu Leu Ser Tyr Phe Val
 245 250 255
 Lys Asp Asn Thr Ile Ser Asn Thr Val Arg Phe Ile Ile Ile Leu Ala
 260 265 270
 Ile Ile Ile Leu Leu Val Phe Gln Val Val Arg Asn Lys Lys Leu Ser
 275 280 285
 Phe Ser Tyr Lys Lys Ser Arg Val Asn Lys Tyr Asn
 290 295 300

<210> 4779

<211> 44

<212> PRT

<213> S.epidermidis

<400> 4779

Met Asn Ser Asn Ser Ser Ile Ile Asn Asn Asn Ile Asn Ile Gly Ser
 1 5 10 15
 Gly Thr Glu Phe Ile Thr Ser Ser Leu Ser Tyr Ser Leu Tyr Phe Asn
 20 25 30
 Leu Ile Tyr Lys Ser Phe Ile Tyr Phe Leu Gly Thr
 35 40

<210> 4780

<211> 513

<212> PRT

<213> S.epidermidis

<400> 4780

Leu Glu Ser Asn Met Ile Thr Thr Thr Gln Glu Val Asn Ile Met Ala
 1 5 10 15
 Met Ser Asp Lys Lys Asp Val Val Leu Ile Gly Ala Gly Val Leu Ser
 20 25 30
 Thr Thr Phe Gly Ser Met Leu Lys Thr Ile Ala Pro Asp Trp Asp Ile
 35 40 45
 His Leu Tyr Glu Arg Leu Asp Arg Pro Gly Ile Glu Ser Ser Asn Glu
 50 55 60
 Arg Asn Asn Ala Gly Thr Gly His Ala Ala Leu Cys Glu Leu Asn Tyr
 65 70 75 80
 Thr Val Gln Gln Pro Asp Gly Ser Ile Asp Ile Glu Lys Ala Lys Glu
 85 90 95
 Ile Asn Glu Gln Phe Glu Ile Ser Lys Gln Phe Trp Gly His Leu Val
 100 105 110
 Lys Ser Gly Glu Ile Gln Asn Pro Lys Glu Phe Ile Asn Pro Leu Pro
 115 120 125
 His Ile Ser Phe Val Arg Gly Lys Asn Asn Val Lys Phe Leu Lys Asp
 130 135 140
 Arg Tyr Glu Ala Met Lys Gln Phe Pro Met Phe Asp Asn Ile Glu Tyr
 145 150 155 160
 Thr Glu Asp Ile Glu Glu Met Arg Lys Trp Ile Pro Leu Met Met Lys
 165 170 175
 Gly Arg Glu Asp Lys Gly Tyr Met Ala Ala Ser Lys Ile Asp Glu Gly
 180 185 190
 Thr Asp Val Asn Tyr Gly Glu Leu Thr Arg Lys Met Ala Gln Asn Leu
 195 200 205
 Lys Asn Ser Pro Asn Val Glu Val Gln Tyr Lys His Glu Val Val Asp
 210 215 220
 Phe Glu Arg Leu Ser Asn Gly Lys Trp Ser Val Lys Ile Lys Asn Leu
 225 230 235 240
 Asn Asn Gly Gln Val Phe Glu His Gln Thr Asp Tyr Val Phe Ile Gly
 245 250 255
 Ala Gly Gly Gly Ala Ile Pro Leu Leu Gln Lys Thr Gly Ile Pro Glu
 260 265 270
 Ser Lys His Leu Gly Gly Phe Pro Ile Ser Gly Gln Phe Ile Ala Cys
 275 280 285
 Thr Asn Pro Gln Val Ile Glu Gln His Asp Ala Lys Val Tyr Gly Lys
 290 295 300
 Glu Pro Pro Gly Thr Pro Pro Met Thr Val Pro His Leu Asp Thr Arg
 305 310 315 320
 Tyr Ile Asp Gly Glu Arg Thr Leu Leu Phe Gly Pro Phe Ala Asn Val
 325 330 335
 Gly Pro Lys Phe Leu Lys His Gly Ser Asn Leu Asp Leu Phe Lys Ser
 340 345 350
 Ile Lys Pro Tyr Asn Ile Thr Thr Leu Leu Ala Ser Ala Val Lys Asn
 355 360 365
 Leu Pro Leu Ile Lys Tyr Ser Phe Asp Gln Val Ile Met Thr Lys Glu
 370 375 380
 Gly Cys Met Asn His Leu Arg Thr Phe Tyr Pro Glu Ala Arg Asp Glu
 385 390 395 400
 Asp Trp Gln Val Tyr Thr Ala Gly Lys Arg Val Gln Val Ile Lys Asp
 405 410 415
 Thr Glu Glu Asn Gly Lys Gly Phe Ile Gln Phe Gly Thr Glu Val Val
 420 425 430
 Asn Ser Glu Asp His Ser Val Ile Ala Leu Leu Gly Glu Ser Pro Gly

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<210> 4781
<211> 351
<212> PRT
<213> S.epidermidis
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<400>	4781														
Tyr	Asn	Leu	Lys	Asp	Tyr	Lys	Ile	Phe	Ile	Ile	Gly	Gly	Phe	Tyr	Met
1				5					10					15	
His	Cys	Pro	Asn	Cys	Gly	Asn	Pro	Ile	Glu	Asp	Asp	Asp	Leu	Phe	Cys
			20					25					30		
Gly	Glu	Cys	Gly	His	Lys	Ile	Ser	Arg	His	Pro	Gln	Ser	Val	Arg	Asn
		35					40					45			
Ala	Glu	Ser	Glu	Ile	Thr	Lys	Ala	Glu	Lys	Asn	Asp	Glu	Glu	Gln	Asn
	50					55					60				
Ile	Thr	Ser	Asn	Asn	Lys	Glu	Asn	Asn	Ala	Ala	Thr	His	Gln	Asn	Val
65					70					75					80
Asp	Ser	Thr	Ser	His	Asp	Glu	Thr	Arg	Ser	Asn	Glu	Asn	Asp	Val	Ala
				85					90					95	
Asp	Ser	Thr	Leu	Gln	Ser	Lys	Gln	Ser	His	Asn	Asp	Thr	Gln	Gln	Ser
			100					105					110		
Asn	Leu	Ser	Thr	Tyr	His	Gln	Arg	Pro	Gln	His	Arg	Glu	Ile	Pro	Gln
		115					120					125			
Asn	Gln	His	Asn	His	Asp	Gln	Gln	Gln	Ser	Gln	Ile	Gly	Gln	Gln	Ala
	130					135					140				
Lys	Gln	Val	Thr	Asn	Glu	Ser	Lys	Gly	Phe	Phe	Lys	Ser	Ala	Phe	Thr
145					150					155					160
Ala	Pro	Asp	Lys	Ile	Ile	Gln	Thr	Asn	His	Val	Phe	Ser	Phe	Lys	Leu
				165					170					175	
Leu	Leu	Ser	Leu	Leu	Ile	Ile	Gly	Phe	Ile	Val	Leu	Ala	Ile	Leu	Leu
			180					185					190		
Ala	Ser	Val	Ile	Pro	Val	Glu	Ile	Gly	Ile	Phe	Gly	Thr	Thr	Arg	Gly
		195					200					205			
Ser	Leu	Val	Thr	Ser	Ile	Ile	Phe	Gly	Ile	Ile	Leu	Phe	Leu	Val	Val
		210				215					220				
Ile	Val	Gly	Ala	Ile	Phe	Gly	Leu	Thr	Arg	Leu	Val	Val	Arg	Gln	Pro
225					230					235					240
Ile	Ala	Phe	Lys	Lys	Val	Leu	Ser	Asp	Tyr	Val	Leu	Ile	Asn	Ser	Val
				245					250					255	
Ser	Leu	Ala	Ile	Leu	Ile	Ile	Ser	Val	Ile	Leu	Ile	Leu	Ala	Glu	Ser
			260					265					270		
Tyr	Ser	Phe	Gly	Gly	Ser	Ile	Ala	Leu	Leu	Ser	Leu	Leu	Leu	Phe	Ile
		275					280					285			
Ala	Ser	Gly	Ile	Tyr	Leu	Ile	Ala	Lys	Tyr	Ser	Thr	Gly	Asn	Gln	Thr
						295					300				

Arg Ile Ser Ser Phe Tyr Gly Val Ile Ile Tyr Ile Ile Ile Leu Phe
 305 310 315 320
 Leu Phe Ile Arg Ile Phe Gly Glu Ala Phe Phe His Gln Ile Phe Gly
 325 330 335
 Asp Phe Ile Glu Glu Leu Gly Asp Leu Phe Glu Gly Gly Thr Tyr
 340 345 350

<210> 4782

<211> 493

<212> PRT

<213> S.epidermidis

<400> 4782

Cys Asn Leu Asn Leu Lys Leu Ile Phe Gln Gly Ile Leu Leu Met Glu
 1 5 10 15
 Val Phe Asn Met Thr Asn Gln Leu Phe Ile Asn Asn Glu Phe Ile Glu
 20 25 30
 Ser Gln Ser Lys Glu Thr Met Asp Val Ile Asn Pro Ala Thr Gly Glu
 35 40 45
 Ala Phe Asp Thr Ile Thr Leu Ala Thr Glu Glu Glu Val Asn Asp Ala
 50 55 60
 Ile Glu Lys Ser Gln Gln Ala Gln Leu Glu Trp Glu Arg Val Pro Gln
 65 70 75 80
 Pro Thr Arg Ala Glu His Val Lys Leu Leu Ile Pro Leu Leu Glu Lys
 85 90 95
 Asn Arg Asp Glu Ile Ala Gln Leu Tyr Val Lys Glu Gln Gly Lys Thr
 100 105 110
 Leu Ala Gln Ala Tyr Gly Glu Ile Asp Lys Ser Ile Ser Phe Ile Asp
 115 120 125
 Tyr Met Thr Ser Leu Ser Met Ser Asp Lys Gly Arg Val Leu Gln Asn
 130 135 140
 Ser Ile Ala Asn Glu Thr Ile Gln Ile Ile Asn Lys Pro Ile Gly Val
 145 150 155 160
 Thr Ala Gly Ile Val Pro Trp Asn Ala Pro Ile Leu Val Leu Met Arg
 165 170 175
 Lys Val Ile Pro Ala Ile Val Thr Gly Cys Ser Val Val Ile Lys Pro
 180 185 190
 Ser Glu Glu Thr Thr Leu Leu Thr Leu Arg Leu Ala Glu Leu Phe Arg
 195 200 205
 Ala Ser Thr Ile Pro Ala Gly Leu Phe Gln Ile Val Pro Gly Thr Gly
 210 215 220
 Glu Thr Val Gly Thr Gln Leu Ala Ser His Lys Asp Ile Gln Leu Ile
 225 230 235 240
 Ser Leu Thr Gly Ser Met Arg Ala Gly Lys Ser Val Tyr Glu Asn Ala
 245 250 255
 Ala Gln Thr Val Lys Lys Val Asn Leu Glu Leu Gly Gly Asn Ala Pro
 260 265 270
 Val Ile Val Thr Ser Asn Ala Asp Leu Asp Lys Ala Val Asn Tyr Ile
 275 280 285
 Val Thr Ala Arg Ile Asn Asn Ala Gly Gln Val Cys Thr Cys Pro Glu
 290 295 300
 Arg Ile Phe Val His Glu Asp Val His Asp Asp Phe Leu Asn Lys Val
 305 310 315 320
 Thr Ser Lys Met Lys Ser Leu Thr Val Gly Asp Pro Phe Asp Glu Asn
 325 330 335
 Thr Asp Tyr Gly Ala Ile Ile Asn Gln Lys Gln Leu Asp Ser Ile His

340 345 350
 Glu Lys Val Gln Asp Ala Ile Lys Asn Gly Ala Thr Leu Met Thr Gly
 355 360 365
 Gly His Gln Leu Lys Arg His Gly Phe Phe Tyr Ala Pro Thr Val Leu
 370 375 380
 Asp Asn Val Arg Lys Asp Tyr Asn Val Phe Lys Asp Glu Ile Phe Gly
 385 390 395 400
 Pro Val Leu Ala Ile Thr Thr Tyr Arg Asp Phe Glu Gln Val Ile Glu
 405 410 415
 Asp Ala Asn Asp Thr Asn Ala Gly Leu Ser Ser Tyr Ile Phe Ser Glu
 420 425 430
 Asn Leu Thr Glu Val Met Thr Ala Thr Glu Arg Leu Lys Phe Gly Glu
 435 440 445
 Val Tyr Ala Asn Cys Glu Ala Glu Glu Val Val Asn Gly Tyr His Ala
 450 455 460
 Gly Trp Arg Glu Ser Gly Leu Gly Gly Ala Asp Gly Ile His Gly Phe
 465 470 475 480
 Glu Glu Tyr Tyr Asn Thr Thr Val Ser Tyr Ile Arg Tyr
 485 490

<210> 4783
 <211> 47
 <212> PRT
 <213> S.epidermidis

<400> 4783
 Asn Ser Leu Lys Lys Ser Leu Ser Gln Lys Ser Tyr Asn Gln Met Arg
 1 5 10 15
 Cys Gly Tyr Leu Met Lys Asp Tyr Asn Tyr Val Phe Pro Lys Ile Lys
 20 25 30
 Arg Thr Leu Val Ile Asn Ser Ile Asp Asn Ser Asn Ser Leu Phe
 35 40 45

<210> 4784
 <211> 55
 <212> PRT
 <213> S.epidermidis

<400> 4784
 Cys Leu Leu Asn Tyr Thr Lys Gly Leu Ile Phe Leu Lys Tyr Phe Asn
 1 5 10 15
 Val Lys Leu His Ile Asn Thr Lys Tyr Phe Gly Glu Thr Leu Glu Gly
 20 25 30
 Thr Gly Gln Ala Glu Asp Tyr Arg Leu Lys Leu Ser Pro Lys Lys Ala
 35 40 45
 Ser Gln Gln Tyr Glu Val Phe
 50 55

<210> 4785
 <211> 46
 <212> PRT
 <213> S.epidermidis

<400> 4785
 Cys Leu Leu Asn Tyr Thr Lys Gly Ser Tyr Phe Phe Ser Ile Ser His
 1 5 10 15

Ile Lys Thr Lys Tyr Phe Gly Glu Ser Leu Arg Glu Gln Asp Lys Leu
 20 25 30
 Lys Leu Ser Pro Lys Lys Ala Arg Gln Gln Tyr Glu Val Leu
 35 40 45

<210> 4786

<211> 277

<212> PRT

<213> S.epidermidis

<400> 4786

Met Lys Leu Lys Arg Gly Phe Gln Lys Asn Lys Thr Pro Gly Arg Leu
 1 5 10 15
 Glu Met Asn Lys Val Ile Glu Ser Asp Val Thr Leu Ser Ser Met Leu
 20 25 30
 Trp Leu Gly Gly Glu Lys Ser Met Ser Ile Tyr Thr Ser Gly Asp Ile
 35 40 45
 Ala His Lys Cys His Val Ser Thr Arg Thr Ile Gln Tyr Tyr Asp Lys
 50 55 60
 Gln Gly Ile Leu Ser Pro Asn Tyr Thr Ser Glu Thr Asn Arg Arg Phe
 65 70 75 80
 Tyr Thr Asp Lys Glu Val Glu Lys Leu Glu Leu Ile Leu Leu Lys
 85 90 95
 Glu Ile Gly Cys Thr Ile Lys Glu Ile Lys Val Leu Leu Lys Asp Asp
 100 105 110
 Ser Ser Met Lys Ser Leu Tyr Thr Phe Leu Gln Ile Lys Lys His Glu
 115 120 125
 Ile Gln Gln Ser Ile Thr Asp Lys Glu His Lys Val Cys Lys Ile Glu
 130 135 140
 Gln Ile Gln Arg Tyr Val His Gln Asn Ser Ile Ser Pro Ile His Tyr
 145 150 155 160
 Leu Gln Asp Ile Thr Thr Tyr Met Glu Glu Ser His Arg Leu Lys Gly
 165 170 175
 Val Arg Lys Lys Leu Trp Leu Ser Ile Ala Leu Ile Gly Ser Leu Gln
 180 185 190
 Tyr Gly Gly Leu Ile Ile Ser Ile Val Thr Arg Arg Lys Lys Pro Phe
 195 200 205
 Leu Ser Met Met Pro Val Val Ala Met Tyr Ser Leu Trp Leu Thr Lys
 210 215 220
 Lys Tyr Lys Lys Asn Val Ser Tyr Val Cys Pro Asn Cys His His Val
 225 230 235 240
 Phe Asn Pro Ser Val Ile His Phe Val Thr Ala Ser His Thr Pro Lys
 245 250 255
 Thr Arg Lys Leu Gln Cys Pro Asp Cys His Glu Met His Tyr Cys Ile
 260 265 270
 Glu Ile Ala Lys Gln
 275

<210> 4787

<211> 237

<212> PRT

<213> S.epidermidis

<400> 4787

Ile Leu Ile Lys Arg Lys Glu Val Lys Val Thr Val Glu Ser Thr Leu
 1 5 10 15

Ala Leu Ile Val Lys Val Val Val Leu Gln Phe Asn Gln Val Lys Leu
 20 25 30
 Asp Lys Lys Phe Ile Met Lys Ile Ser Met Glu Gly Ser Ser Val Ile
 35 40 45
 Asn Leu Glu Gln Leu Ser Leu Tyr Gln Asp Ser Leu Gly Tyr Leu Gly
 50 55 60
 Gln Gln Met Asn Phe Pro Glu Lys Met Thr Phe His Pro Lys Ile Phe
 65 70 75 80
 Glu Glu Thr Ile Ser Lys Ser His Pro Gly Tyr Glu Asp Leu Leu Ala
 85 90 95
 Tyr Arg Glu Val Met Met Asn Tyr Thr Leu Ser Glu Ile Lys Ala Ile
 100 105 110
 Tyr Thr Asp Thr Phe Asp Phe Ser Lys Lys His Pro Leu Tyr Met Thr
 115 120 125
 Phe Asn Lys Phe Asp Thr Gln Lys Glu Arg Gly Gln Met Leu Ala Lys
 130 135 140
 Leu Lys Val Leu Tyr Glu Met Phe Gly Leu Lys Met Val Asp Asn Glu
 145 150 155 160
 Leu Ser Asp Phe Leu Pro Leu Met Leu Gln Phe Leu Gln Val Ala Asp
 165 170 175
 Phe Lys Asn Asp Ser Arg Ala Gln Glu Asn Leu Gln Leu Val Ile Met
 180 185 190
 Ile Ile Glu Asp Gly Thr Tyr Glu Met Ala Asn Thr Leu Ala Glu Asn
 195 200 205
 Asn Asn Pro Tyr Ala Tyr Val Val Ser Ala Leu Arg Lys Thr Leu Lys
 210 215 220
 Ala Cys Ile Val Pro Leu Lys Glu Val Glu Asn His Ala
 225 230 235

<210> 4788

<211> 42

<212> PRT

<213> S.epidermidis

<400> 4788

Leu Tyr Ile Asn Ile Trp Tyr Trp Asn Ile Lys Ser Asn Lys Tyr Ile
 1 5 10 15
 Lys Leu Asn Tyr Gln Leu Leu Lys Thr Asn Thr Leu Pro Glu Thr Ile
 20 25 30
 Ile Val Val Ser Gly Phe Phe Ile Tyr Lys
 35 40

<210> 4789

<211> 263

<212> PRT

<213> S.epidermidis

<400> 4789

Phe His Ile Asn Leu Leu Arg Arg Asn Thr Leu Met Lys Ala Leu Ile
 1 5 10 15
 Val Asp Asp Glu Pro Leu Ala Arg Asn Glu Leu Gln Tyr Leu Leu Asn
 20 25 30
 Leu Asn Asp Ala Ile Asp Glu Ile Glu Glu Ala Glu Asn Ile Glu Glu
 35 40 45
 Thr Leu Glu Lys Leu Leu Tyr Asn Thr Phe Asp Leu Ile Phe Leu Asp
 50 55 60

Ile Asn Leu Met Asp Glu Ser Gly Ile Asp Leu Ala Gln Lys Ile Asn
 65 70 75 80
 Lys Met Lys Arg Ser Pro His Ile Ile Phe Ala Thr Ala His Glu Lys
 85 90 95
 Phe Ala Val Lys Ala Phe Glu Leu Asn Ala Thr Asp Tyr Ile Leu Lys
 100 105 110
 Pro Phe Glu Lys Glu Arg Ile Asn Gln Ala Val Asn Lys Val Asp Met
 115 120 125
 Ala Lys Asp Lys Pro Lys Asn Lys Asp Lys Thr Ile Thr Pro Lys Tyr
 130 135 140
 Ile Asp Tyr Ser Asp Asp Glu Arg Ala Gln Thr His Val Leu Pro Ile
 145 150 155 160
 Glu Val Asp Glu Arg Ile His Ile Leu Asn Phe Thr Asp Ile Ile Ala
 165 170 175
 Leu Ser Val Asn Asn Gly Ile Thr Thr Ile Asp Thr Thr Lys Gln Ser
 180 185 190
 Tyr Glu Thr Thr Glu Thr Leu Asn His Tyr Glu Lys Lys Leu Pro Ser
 195 200 205
 Ser Leu Phe Ile Lys Ile His Arg Ala Thr Ile Val Asn Lys Glu His
 210 215 220
 Ile Gln Thr Ile Glu His Trp Phe Asn Tyr Thr Tyr Gln Leu Thr Leu
 225 230 235 240
 Thr His Glu Phe Lys Tyr Gln Val Ser Arg Ser Tyr Met Lys Thr Phe
 245 250 255
 Lys Gln Gln Leu Gly Leu Gln
 260

<210> 4790

<211> 40

<212> PRT

<213> S.epidermidis

<400> 4790

Tyr Asp Ile Asn Thr Tyr Tyr His Asp Leu Ile Tyr Lys Thr Leu Asn
 1 5 10 15
 Pro Asn Arg His Ser Met His Val Thr Tyr Thr Tyr Gln His Tyr Leu
 20 25 30
 Tyr Ile Leu Thr Asp Ile Ser Trp
 35 40

<210> 4791

<211> 590

<212> PRT

<213> S.epidermidis

<400> 4791

Lys Glu Ile Lys Asp Ile Lys Glu Thr Cys Ile Asn Arg Arg Asp Gly
 1 5 10 15
 Gly Tyr Met Val Asn Thr Asn Asn His Ile Ser Glu Glu Leu Asp Lys
 20 25 30
 Asn Leu Asp Glu Met Glu Phe Leu Lys Ala Asn Ser Asp Phe Leu Arg
 35 40 45
 Gly Thr Ile Glu Gln Ser Leu Ala Asn Pro Ile Thr Gly Ser Ile Thr
 50 55 60
 Gln Asp Asp Ala Lys Leu Leu Lys Phe His Gly Ser Tyr Met Gln Asp
 65 70 75 80

1852

Ser	Phe	Lys	Gly	Glu	Arg	Leu	Asn	Lys	Ile	Tyr	Lys	Glu	Asn	Ile	Asp
	530					535					540				
Glu	Asn	Glu	Ile	Leu	Glu	Ser	Leu	Arg	Pro	Leu	Leu	Leu	Arg	Tyr	Ser
545					550				555						560
Lys	Glu	Arg	Leu	Asp	Gly	Glu	His	Phe	Gly	Asp	Phe	Val	Ile	Arg	Asp
				565					570					575	
Gly	Val	Ile	Ala	Lys	Val	His	Asp	Gly	Arg	Asp	Phe	His	Ser		
			580					585					590		

<210> 4792

<211> 208

<212> PRT

<213> S.epidermidis

<400> 4792

Lys	Ala	Val	Asn	Leu	Met	Arg	Ala	Lys	Lys	Leu	Ile	Ser	His	Leu	Thr
1				5					10					15	
Val	Ser	Arg	Ile	Thr	Ser	Thr	Arg	Asn	Val	Ile	Ile	Val	Ile	Lys	Arg
			20					25					30		
Glu	Gly	Val	Ile	Ile	Met	Thr	Lys	Phe	Asn	Phe	Asp	Gln	Val	His	Ser
		35					40					45			
Asp	Ile	Gln	Phe	Lys	Ile	Lys	His	Leu	Met	Val	Ser	Gln	Val	Lys	Gly
	50					55				60					
Thr	Phe	Lys	Gln	Phe	Asp	Val	Gln	Leu	Asp	Gly	Asp	Ile	Asn	Asp	Leu
65					70					75					80
Thr	Ser	Leu	Lys	Ala	Thr	Ala	Thr	Ile	Ile	Pro	Ser	Ser	Ile	Asp	Thr
				85					90					95	
Gln	Asn	Glu	Asp	Arg	Asp	Asn	His	Leu	Arg	Ser	Asn	Asp	Phe	Phe	Gly
			100					105					110		
Thr	Glu	Asp	Asn	Asp	Lys	Met	Thr	Phe	Val	Thr	Lys	Glu	Ile	Asn	Glu
		115					120					125			
Asn	Gln	Val	Val	Gly	Asp	Leu	Thr	Ile	Lys	Gly	Glu	Thr	His	Glu	Glu
		130				135					140				
Thr	Phe	Asp	Val	Glu	Phe	Asn	Gly	Val	Ser	Lys	Asn	Pro	Met	Asn	Gly
145					150					155					160
Gln	Gln	Val	Thr	Gly	Phe	Ile	Val	Ser	Gly	Thr	Ile	Asn	Arg	Glu	Lys
				165					170					175	
Tyr	Gly	Ile	Asn	Phe	Asn	Gln	Ala	Leu	Glu	Thr	Gly	Gly	Val	Met	Leu
			180					185					190		
Gly	Lys	Asn	Val	Lys	Phe	Glu	Ala	Ser	Ala	Glu	Phe	Ser	Ile	Asp	Asn
		195					200					205			

<210> 4793

<211> 199

<212> PRT

<213> S.epidermidis

<400> 4793

Phe	Lys	Val	Lys	Ile	His	Lys	Leu	Ile	Leu	Gly	Gly	Ser	His	Leu	Lys
1				5					10					15	
Lys	Glu	Lys	Val	Met	Asp	Trp	Thr	Thr	Phe	Ile	Gly	Val	Val	Ile	Val
			20					25					30		
Leu	Leu	Phe	Ala	Val	Ile	Pro	Met	Met	Val	Phe	Pro	Lys	Ala	Ser	Glu
		35					40					45			
Ile	Ile	Ile	Thr	Asp	Ile	Asn	Ser	Ala	Ile	Ser	Asn	Ser	Ile	Gly	Ser
	50					55					60				

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Val Tyr Leu Phe Met Gly Leu Ala Ile Phe Cys Phe Val Leu Tyr Ile
65 70 75 80
Ala Phe Gly Lys Tyr Gly Asn Val Thr Leu Gly Lys Ala Thr Asp Lys
85 90 95
Pro Glu Phe Asn Asn Phe Thr Trp Ala Ala Met Leu Phe Cys Ala Gly
100 105 110
Ile Gly Ser Asp Ile Leu Tyr Trp Gly Val Ile Glu Trp Ala Phe Tyr
115 120 125
Tyr Gln Val Pro Pro Asn Gly Ala Lys Ser Met Ser Asp Gln Ala Leu
130 135 140
Gln Tyr Ala Thr Gln Tyr Gly Met Phe His Trp Gly Pro Ile Ala Trp
145 150 155 160
Ala Ile Tyr Val Leu Pro Ala Leu Pro Ile Gly Tyr Leu Val Phe Val
165 170 175
Lys Lys Lys Pro Val Tyr Lys Ile Ser Gln Ala Cys Arg Pro Ile Leu
180 185 190
Lys Gly His Thr Asp Lys Leu
195

<210> 4794
<211> 42
<212> PRT
<213> S.epidermidis

<400> 4794
Lys Leu Val Lys Ser Val Asn Gly Ile Ile Ile Ile Met Val Pro Lys
1 5 10 15
Gln Lys Ile Tyr Lys Val Ile Glu Thr Ile Leu Asn Thr Phe Ser Ile
20 25 30
Tyr Phe Phe Leu Ile Ile Val Met Ile Ile
35 40

<210> 4795
<211> 54
<212> PRT
<213> S.epidermidis

<400> 4795
Phe Ser Ser Asn Thr Phe Ser Asp Phe Leu Leu Leu Ser Thr Ser Leu
1 5 10 15
Lys Ser Phe Ile Arg Val Asn Phe Ser Thr Pro Pro Phe Phe Lys Lys
20 25 30
Leu Phe Tyr Tyr Gln Ile Lys Leu Ile Gln Ile Phe Asp Lys Phe Asn
35 40 45
Leu Lys Gln Phe Glu Leu
50

<210> 4796
<211> 50
<212> PRT
<213> S.epidermidis

<400> 4796
Lys Ala Ser Asn Gln Lys Glu His Asn Val Glu Cys Arg Ile Ile Ser
1 5 10 15
Ile Leu Tyr Leu Ile Val Ile Thr Ser Tyr Val Tyr Lys Ile Tyr His

20 25 30
 Leu His Asp Lys Gly Thr Val Val Met Thr Thr Thr Val Pro Phe Leu
 35 40 45
 Leu Tyr
 50

<210> 4797
 <211> 557
 <212> PRT
 <213> S.epidermidis

<400> 4797
 Lys Lys Ser Lys Val Glu Leu Tyr Met Lys Gln Arg Val Gly Gln Tyr
 1 5 10 15
 Leu Met Asp Ala Val Tyr Ser Ala Gly Ala Asp Lys Val Phe Gly Val
 20 25 30
 Pro Gly Asp Phe Asn Leu Ala Phe Leu Asp Asp Ile Ile Ala His Asn
 35 40 45
 Asp Ile Lys Trp Ile Gly Asn Thr Asn Glu Leu Asn Ala Ser Tyr Ala
 50 55 60
 Ala Asp Gly Tyr Ala Arg Ile Asn Gly Ile Gly Ala Met Val Thr Thr
 65 70 75 80
 Phe Gly Val Gly Glu Leu Ser Ala Val Asn Gly Ile Ala Gly Ser Tyr
 85 90 95
 Ala Glu Arg Val Pro Val Ile Ala Ile Thr Gly Ala Pro Thr Arg Ala
 100 105 110
 Val Glu Gln Glu Gly Lys Tyr Val His His Ser Leu Gly Glu Gly Thr
 115 120 125
 Phe Asp Asp Tyr Arg Lys Met Phe Glu Pro Ile Thr Thr Ala Gln Ala
 130 135 140
 Tyr Ile Thr Pro Asp Asn Ala Thr Thr Glu Ile Pro Arg Val Ile Asn
 145 150 155 160
 Thr Ala Leu Gln Gln Arg Arg Pro Val His Ile His Leu Pro Ile Asp
 165 170 175
 Val Ala Leu Thr Glu Ile Glu Ile Ser Asn Pro Phe Lys Pro Glu Val
 180 185 190
 Glu Pro Gln Lys Asn Val Gln Ser Tyr Ile Asn Met Val Gln Asp Lys
 195 200 205
 Leu Glu Ser Ala Ser Gln Pro Val Ile Ile Thr Gly His Glu Ile Asn
 210 215 220
 Ser Phe His Leu His Lys Glu Leu Glu Gln Phe Val Asn Gln Thr Gln
 225 230 235 240
 Ile Pro Val Val Gln Leu Ser Leu Gly Lys Gly Ala Phe Asn Glu Glu
 245 250 255
 Asn Pro Tyr Tyr Met Gly Ile Phe Asp Gly Ser Ile Ala Glu Gln Asp
 260 265 270
 Ile Gln Asp Tyr Val Asn Gln Ser Asp Ala Ile Leu Asn Ile Gly Ala
 275 280 285
 Lys Leu Thr Asp Ser Ala Thr Ala Gly Phe Ser Tyr Gln Phe Asp Ile
 290 295 300
 Asn Glu Val Ile Met Leu Asn His Asn Glu Phe Lys Ile Asn Asp Thr
 305 310 315 320
 Cys Ile Glu Ala Phe Ser Leu Pro Asn Ile Leu Asn Gly Leu Asn Lys
 325 330 335
 Tyr Ile His Tyr Lys Asn Thr Asn Asp Phe Pro Gln Tyr Glu Arg Pro
 340 345 350

				85				90				95				
Gly	Ser	Glu	Ser	Gly	Asn	Ala	Gln	Gly	Leu	Ala	Glu	Ile	Phe	Glu	Gln	
				100					105					110		
Arg	Leu	Ser	Asp	Ile	Gly	Asn	Asp	Val	Thr	Leu	Lys	Ser	Met	Asp	Asp	
				115					120					125		
Phe	Lys	Pro	Lys	Asn	Leu	Lys	Lys	Val	Glu	Asp	Leu	Phe	Ile	Ile	Thr	
				130					135					140		
Ser	Thr	His	Gly	Glu	Gly	Asp	Pro	Pro	Asp	Asn	Ala	Val	Glu	Leu	His	
145					150					155					160	
Glu	Tyr	Ile	His	Gly	Arg	Lys	Ala	Pro	Lys	Leu	Asp	Gly	Val	Arg	Phe	
				165					170					175		
Ser	Val	Leu	Ala	Leu	Gly	Asp	Gln	Thr	Tyr	Glu	Phe	Phe	Cys	Gln	Thr	
				180					185					190		
Gly	Lys	Asp	Phe	Asp	Asn	Arg	Leu	Ala	Glu	Leu	Gly	Ala	Glu	Arg	Leu	
				195					200					205		
Tyr	His	Arg	Thr	Asp	Cys	Asp	Val	Asp	Tyr	Glu	Glu	Asp	Ala	Glu	Lys	
				210					215					220		
Trp	Met	Ala	Asn	Val	Ile	Asn	Thr	Ile	Asp	Ser	Thr	Pro	Ala	Gly	Thr	
225					230					235					240	
Glu	Ser	Glu	Gln	Val	Val	Ser	Glu	Ser	Ile	Lys	Ser	Ala	Lys	Glu	Lys	
				245					250					255		
Lys	Tyr	Ser	Lys	Ser	Asn	Pro	Tyr	Asp	Ala	Glu	Val	Leu	Thr	Asn	Ile	
				260					265					270		
Asn	Leu	Asn	Gly	Arg	Gly	Ser	Asp	Lys	Glu	Thr	Arg	His	Ile	Glu	Leu	
				275					280					285		
Leu	Leu	Asp	Asn	Phe	Gly	Glu	Glu	Tyr	Glu	Pro	Gly	Asp	Cys	Val	Val	
				290					295					300		
Val	Leu	Pro	Gln	Asn	Asp	Pro	Ala	Ile	Val	Asp	Leu	Leu	Ile	Ser	Thr	
305					310					315					320	
Leu	Gly	Trp	Ser	Pro	Glu	Thr	Gln	Val	Leu	Ile	Asn	Glu	Asp	Gly	Asp	
				325					330					335		
Thr	Leu	Asn	Leu	Glu	Glu	Ala	Leu	Thr	Ser	His	Phe	Glu	Ile	Thr	Lys	
				340					345					350		
Leu	Thr	Lys	Pro	Leu	Ile	Glu	Asn	Ala	Ala	Ile	Phe	Phe	Asp	Asn	Glu	
				355					360					365		
Glu	Leu	Ser	Glu	Lys	Ile	Gln	Asp	Lys	Glu	Trp	Ile	Gln	Asn	Tyr	Val	
				370					375					380		
Glu	Gly	Arg	Asp	Leu	Ile	Asp	Leu	Leu	Asn	Asp	Phe	Ala	Thr	Thr	Glu	
385					390					395					400	
Leu	Gln	Pro	Glu	Asn	Leu	His	Gln	Leu	Leu	Arg	Lys	Leu	Pro	Pro	Arg	
				405					410					415		
Glu	Tyr	Ser	Ile	Ser	Ser	Ser	Tyr	Lys	Ala	Thr	Pro	Asp	Glu	Val	His	
				420					425					430		
Ile	Thr	Val	Gly	Ala	Val	Arg	Tyr	Gln	Ala	His	Gly	Arg	Glu	Arg	Ser	
				435					440					445		
Gly	Val	Cys	Ser	Val	Gln	Phe	Ala	Glu	Arg	Ile	Gln	Glu	Gly	Asp	Thr	
				450					455					460		
Ile	Pro	Ile	Tyr	Leu	Lys	Arg	Asn	Pro	Asn	Phe	Lys	Phe	Pro	Gln	Asp	
465					470					475					480	
Glu	Ser	Thr	Pro	Val	Ile	Met	Ile	Gly	Pro	Gly	Thr	Gly	Val	Ala	Pro	
				485					490					495		
Phe	Arg</															

530 535 540
 Asp Val Ala Phe Ser Arg Asp Thr Asp Lys Lys Val Tyr Val Gln His
 545 550 555 560
 Lys Ile Val Glu Asn Ser Glu Gln Phe Asn Arg Trp Ile Glu Asn Gly
 565 570 575
 Ala Thr Ile Tyr Val Cys Gly Asp Glu Ser Lys Met Ala Lys Asp Val
 580 585 590
 His Gln Ala Ile Lys Asn Val Leu Ile Lys Glu Gln Asn Leu Ser Glu
 595 600 605
 Thr Asp Ala Glu Glu Tyr Leu Lys Gln Met Lys Arg Asp Lys Arg Tyr
 610 615 620
 Gln Arg Asp Val Tyr
 625

<210> 4801

<211> 198

<212> PRT

<213> S.epidermidis

<400> 4801

Arg Ser Thr Lys Arg Asp Met Cys Lys Ser Glu Thr His Glu Gly Thr
 1 5 10 15
 Ser Phe Met Asn Ile Leu Asn Ile Lys Glu Gly Gln His Tyr Ile Ala
 20 25 30
 Lys Ile Glu Ser His Ser Phe Val Asp Gly Glu Gly Val Arg Cys Ser
 35 40 45
 Val Tyr Val Ser Gly Cys Pro Phe Gln Cys Lys Gly Cys Tyr Asn Val
 50 55 60
 Lys Ala Gln Asn Phe Lys Tyr Gly Glu Pro Phe Glu Leu Glu Met Leu
 65 70 75 80
 Glu Glu Ile Leu Asp Tyr Cys Ala Pro Ser Tyr Ile Glu Gly Leu Ser
 85 90 95
 Ile Leu Gly Gly Glu Pro Phe Cys Asn Leu Phe Ile Thr Leu Gln Leu
 100 105 110
 Val Glu Ala Phe Arg Gln Arg Phe Gly His Thr Lys Thr Ile Trp Val
 115 120 125
 Trp Thr Gly Phe Leu Phe Glu Tyr Leu Lys Gln Gln Asp Asp Ala Arg
 130 135 140
 Lys Ser Leu Leu Glu His Ile Asp Val Leu Val Asp Gly Met Phe Ile
 145 150 155 160
 Gln His Leu Tyr Arg Pro Asn Leu Pro Tyr Lys Gly Ser Leu Asn Gln
 165 170 175
 Arg Val Trp Cys Ile Asp Val Gln Ser Ser Leu Gln Lys Glu Gln Val
 180 185 190
 Ile Glu Tyr Leu Thr Lys
 195

<210> 4802

<211> 84

<212> PRT

<213> S.epidermidis

<400> 4802

Lys Lys Ala Asn Glu Ala Thr Asn Phe Lys Ala Lys Ile Glu Val Val
 1 5 10 15
 Ser Thr Leu Phe Ser Thr Lys Ser Asp Phe Thr Lys Asn Asn Ser Lys

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<210> 4803
<211> 231
<212> PRT
<213> S.epidermidis
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<210> 4804
<211> 802
<212> PRT
<213> S.epidermidis
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<400> 4804
Ser Met Ala Lys Gln Lys Leu Val Met Ile Gly Asn Gly Met Ala Gly
1 5 10 15
Leu Arg Thr Ile Glu Glu Ile Leu Glu Arg Ser Gln Ser Gln Phe Asp

			20					25					30		
Ile	Thr	Ile	Ile	Gly	Lys	Glu	Pro	Tyr	Pro	Asn	Tyr	Asn	Arg	Ile	Met
		35					40					45			
Leu	Ser	Asn	Ile	Leu	Gln	Lys	Lys	Met	Thr	Val	Glu	Asp	Thr	Ile	Met
	50					55					60				
Asn	Pro	Tyr	Asp	Trp	Tyr	Gln	Glu	Asn	Asn	Ile	Glu	Leu	Ile	Asn	Asn
65					70					75					80
Asp	Pro	Val	Glu	Lys	Val	Asp	Lys	Glu	Asn	Lys	Ile	Val	Thr	Thr	Ser
				85					90					95	
Lys	Gly	Ile	Glu	Val	Glu	Tyr	Asp	Ile	Cys	Ile	Phe	Ala	Thr	Gly	Ser
			100					105					110		
Lys	Ala	Phe	Val	Leu	Pro	Ile	Pro	Gly	Ser	Asn	Leu	Pro	Ser	Val	Ile
		115					120					125			
Gly	Trp	Arg	Thr	Ile	Asp	Asp	Thr	Asn	Lys	Met	Ile	Glu	Ile	Ala	Gln
	130					135					140				
Thr	Lys	Lys	Arg	Ala	Val	Val	Ile	Gly	Gly	Gly	Leu	Leu	Gly	Leu	Glu
145					150					155					160
Cys	Ala	Arg	Gly	Leu	Leu	Asp	Gln	Gly	Met	Glu	Val	Thr	Val	Leu	His
				165					170					175	
Leu	Ala	Asp	Trp	Leu	Met	Glu	Met	Gln	Leu	Asp	Arg	Lys	Ala	Gly	Glu
			180					185					190		
Met	Leu	Lys	Ala	Asp	Leu	Glu	Lys	Gln	Gly	Met	Lys	Ile	Glu	Leu	Gln
		195					200					205			
Ala	Asn	Ser	Lys	Glu	Ile	Ile	Gly	Asp	Lys	Asp	Val	Glu	Ala	Ile	Lys
	210					215					220				
Leu	Ala	Asp	Gly	Arg	Val	Ile	Glu	Thr	Asp	Leu	Val	Val	Met	Ala	Val
225					230					235					240
Gly	Ile	Arg	Pro	Tyr	Thr	Glu	Val	Ala	Lys	Asp	Ser	Gly	Leu	Asp	Val
				245					250					255	
Asn	Arg	Gly	Ile	Val	Val	Asn	Asp	Tyr	Met	Gln	Thr	Ser	Asp	Ser	His
			260					265					270		
Ile	Tyr	Ala	Val	Gly	Glu	Cys	Ala	Glu	His	Asp	Gly	Lys	Val	Tyr	Gly
		275					280					285			
Leu	Val	Ala	Pro	Leu	Tyr	Glu	Gln	Gly	Lys	Val	Leu	Ala	Asp	Tyr	Leu
	290					295					300				
Thr	Gly	Lys	Glu	Thr	Lys	Gly	Tyr	Lys	Gly	Ser	Thr	Thr	Phe	Thr	Ser
305					310					315					320
Leu	Lys	Val	Ser	Gly	Cys	Asp	Leu	Tyr	Ser	Ala	Gly	Gln	Ile	Val	Glu
				325					330					335	
Asp	Glu	Asp	Ile	His	Gly	Val	Glu	Ile	Phe	Asn	Ser	Val	Asp	Asn	Ile
			340					345					350		
Tyr	Lys	Lys	Val	Tyr	Leu	Ser	His	Gly	Gln	Val	Val	Gly	Ala	Val	Leu
		355					360					365			
Tyr	Gly	Asp	Thr	Asp	Asp	Gly	Ser	Arg	Phe	Tyr	Asn	Met	Met	Lys	Lys
	370					375									

465 470 475 480
 Cys Pro Cys Thr Asp Leu Thr Arg Asp Gln Ile Val Thr Gln Ile Arg
 485 490 495
 Ala Lys Asn Leu Lys Ser Ser Lys Glu Val Arg His Val Leu Asp Phe
 500 505 510
 Lys Asp Lys Asp Gly Cys Pro Lys Cys Arg Pro Ala Ile Asn Tyr Tyr
 515 520 525
 Leu Asn Met Val Tyr Pro Phe Glu His Arg Asp Glu Lys Asp Ser Arg
 530 535 540
 Phe Ala Asn Glu Arg Tyr His Ala Asn Ile Gln Asn Asp Gly Thr Phe
 545 550 555 560
 Ser Val Ile Pro Gln Met Arg Gly Gly Val Thr Asp Ala Asp Gln Leu
 565 570 575
 Ile Arg Leu Gly Glu Val Ala Lys Lys Tyr Asn Val Pro Leu Val Lys
 580 585 590
 Val Thr Gly Ser Gln Arg Val Gly Leu Tyr Gly Leu Lys Lys Glu Glu
 595 600 605
 Leu Pro Gln Val Trp Lys Asp Leu Gly Met Arg Ser Ala Ser Ala Tyr
 610 615 620
 Gly Lys Lys Thr Arg Ser Val Lys Ser Cys Val Gly Lys Glu Phe Cys
 625 630 635 640
 Arg Phe Gly Thr Gln Tyr Thr Thr Arg Leu Gly Ile Arg Leu Glu Lys
 645 650 655
 Thr Phe Glu Tyr Ile Asp Thr Pro His Lys Phe Lys Met Gly Val Ser
 660 665 670
 Gly Cys Pro Arg Ser Cys Val Glu Ser Gly Val Lys Asp Phe Gly Val
 675 680 685
 Ile Ser Val Glu Asn Gly Tyr Gln Ile Phe Ile Gly Gly Asn Gly Gly
 690 695 700
 Thr Asp Val Thr Val Gly Lys Leu Leu Thr Thr Val Glu Thr Glu Asp
 705 710 715 720
 Glu Val Ile Gln Leu Cys Gly Ala Leu Met Gln Tyr Tyr Arg Glu Thr
 725 730 735
 Gly Val Tyr Ala Glu Arg Thr Ala Pro Trp Leu Glu Arg Met Gly Phe
 740 745 750
 Glu Asn Val Lys Asn Val Leu Leu Asn Gln Glu Lys Gln Lys Glu Leu
 755 760 765
 Tyr Ser Arg Ile Met Glu Ala Lys Lys Ala Val Glu Asn Glu Pro Trp
 770 775 780
 Glu Thr Ile Val Glu Asn Lys Glu Ala Gln Lys Ile Phe Glu Val Glu
 785 790 795 800
 Lys Val

<210> 4805

<211> 112

<212> PRT

<213> S.epidermidis

<400> 4805

Ser Ile Lys Lys Lys Glu Arg Trp Leu Cys Tyr Met Val Lys Pro Arg
 1 5 10 15
 Gln Arg Gln Tyr Pro Thr Val Thr Ser Tyr Leu Asn Ile Val Arg Glu
 20 25 30
 Ser Leu Phe Ile Thr Ile Ser Gly Val Phe Trp Met Tyr Cys Ile Val
 35 40 45

Val	Met	Ile	Val	Tyr	Ile	Gly	Thr	Leu	Ile	Asn	Ser	Gln	Met	Glu	Ser
50						55					60				
Val	Ile	Thr	Ile	Arg	Ile	Ala	Leu	Asn	Val	Glu	Asn	Thr	Glu	Ile	Tyr
65					70					75					80
Lys	Leu	Phe	Gly	Trp	Met	Ser	Leu	Phe	Val	Leu	Ile	Ile	Phe	Ile	Phe
				85					90					95	
Phe	Thr	Phe	Ser	Leu	Ala	Phe	Gln	Lys	Tyr	Lys	Lys	Gly	Arg	Asp	Ile
			100					105					110		

<210> 4806

<211> 148

<212> PRT

<213> S.epidermidis

<400> 4806

Met	Ser	Lys	Asn	Lys	Asn	Asp	Tyr	Glu	His	Met	Leu	Phe	Tyr	Phe	Ala
1				5					10					15	
Tyr	Lys	Thr	Phe	Ile	Thr	Thr	Ala	Asp	Glu	Ile	Ile	Glu	Gln	Tyr	Gly
			20					25					30		
Met	Ser	Arg	Gln	His	His	Arg	Phe	Leu	Phe	Phe	Ile	Asn	Lys	Leu	Pro
		35					40					45			
Gly	Ile	Thr	Ile	Lys	Glu	Leu	Leu	Ile	Thr	Leu	Glu	Ile	Ser	Lys	Gln
					50		55				60				
Gly	Ser	His	Ala	Thr	Leu	Arg	Lys	Leu	Lys	Glu	Glu	Gly	Leu	Ile	Val
65					70					75					80
Glu	Gln	Thr	Ser	Lys	Gln	Asp	Arg	Arg	Val	Lys	Lys	Leu	Phe	Thr	Thr
				85					90					95	
Glu	Ala	Gly	Asp	Asp	Leu	Ile	Gly	Lys	Leu	Asn	Gln	Ala	Gln	Asp	Glu
			100					105					110		
Leu	Ile	Gln	Thr	Leu	Gln	Lys	Val	Gly	His	Asp	Trp	Tyr	Ala	Met	
		115					120				125				
Met	Glu	Glu	Leu	Ala	Asn	Tyr	Arg	Glu	Gly	Phe	Lys	Thr	Ile	Glu	His
		130					135				140				
Leu	Lys	Glu	Asp												
145															

<210> 4807

<211> 308

<212> PRT

<213> S.epidermidis

<400> 4807

Asn	Met	Lys	Lys	Phe	Trp	Gly	Ile	Leu	Leu	Ile	Val	Met	Ser	Ile	Ala
1				5					10					15	
Leu	Val	Gly	Cys	Ser	Asn	Ser	Asn	Asp	Ser	Asp	Gln	Ser	Ser	Asn	Glu
			20					25					30		
Lys	Ser	Ser	Ser	Lys	Ser	Ser	Glu	Lys	Lys	Thr	Asp	Val	Ala	Thr	Glu
			35				40					45			
Tyr	Thr	Lys	Glu	Asp	Glu	Tyr	Lys	Glu	Leu	Glu	Lys	Glu	Ala	Lys	Asp
			50				55				60				
Leu	Lys	Gln	Lys	Pro	Val	Leu	Asn	Glu	Ile	Asp	Ala	Leu	Ile	Thr	Glu
65					70					75					80
Lys	Gly	Phe	Thr	Asn	Lys	Thr	Gly	Leu	Gln	Gly	Trp	Glu	Asp	Tyr	Lys
				85					90					95	
Lys	Leu	Val	Asp	Lys	Val	Thr	Leu	Ala	Asp	Tyr	Lys	Tyr	Thr	Lys	Glu
			100					105					110		

Ser Lys Gly Ser Ser Ile Glu Glu Val Asn Lys Phe Phe Lys Asp Lys
 115 120 125
 Lys Gly Val Glu Ile Lys Arg Met Lys Ser Lys Glu Lys Asn Ile Lys
 130 135 140
 His Ile Asn Tyr Met Tyr Val Asp Pro Asp Gly Lys Lys Thr Gly Glu
 145 150 155 160
 Asn Lys Gln Pro Met Ser Tyr Ala Gln Ile Leu Ala Thr Phe Lys Glu
 165 170 175
 Gly Lys Leu Val Ala Thr Asn Ile Gln Pro Gly Phe Phe Ala Leu Asp
 180 185 190
 Lys Lys Lys Met Val Lys Ala Lys Asp Leu Glu Lys Val Lys Thr Leu
 195 200 205
 Glu Asp Leu Thr Arg Leu Lys Asp Pro Lys Ala Thr Ser Tyr Gly Ile
 210 215 220
 Leu Gln Thr Lys Tyr Lys Gly Lys Pro Tyr Thr Gln Val Ser Ile Leu
 225 230 235 240
 Gly Ser Asp Ser Asp Glu Glu Asn Asp Ile Ser Ser Ala Ile Leu Ala
 245 250 255
 Tyr Tyr Leu Phe Ser Pro Thr Glu Leu Asp Ser Asp Asp Asn His Lys
 260 265 270
 Tyr Val Glu Val Ala Ser Ala Pro Phe Leu Ser Ala Gln Asn Asp Phe
 275 280 285
 Ser Ser Tyr Gln Leu Gly Val Phe Lys Lys Ile Ile Glu Ser Ser Met
 290 295 300
 Ser Phe Asp Glu
 305

<210> 4808

<211> 182

<212> PRT

<213> S.epidermidis

<400> 4808

Gly Val Lys Asn Met Ser Asn Ile Asn Ile Arg Val Ala His Glu Gln
 1 5 10 15
 Asp Ala Glu Glu Leu His Ser Ile Met Gln Ile Ala Phe Thr Pro Leu
 20 25 30
 Arg Glu Leu Gly Ile Asp Trp Pro Ser Val His Ala Asp Leu Glu Met
 35 40 45
 Val Lys Asp Asn Leu Arg Gln Asn Thr Thr Phe Val Leu Glu Asn Glu
 50 55 60
 Lys Glu Ile Ile Ser Thr Ile Thr Val Cys Tyr Ala Trp Ser Ser Val
 65 70 75 80
 Lys Pro Ile Ser Gly Tyr Pro Phe Val Trp Trp Phe Ala Thr Arg Pro
 85 90 95
 Thr Tyr Asp Gly Gln Gly Tyr Gly Ser Gln Leu Leu Lys Tyr Val Glu
 100 105 110
 Glu Thr Phe Leu Arg Asp Thr Leu Lys Ala Ala Ala Val Thr Leu Gly
 115 120 125
 Thr Ser Ala Arg Leu His Pro Trp Leu Leu Asn Ile Tyr Glu Lys Arg
 130 135 140
 Gly Tyr Glu Ile Tyr Ala Lys His Glu Asn Asp Asp Gly Asp Leu Gly
 145 150 155 160
 Val Ile Met Arg Lys Ile Leu Ile Pro Glu Gln Phe Asn Asp Asp Ile
 165 170 175
 Leu Gly Arg Pro Pro Phe

180

<210> 4809

<211> 422

<212> PRT

<213> S.epidermidis

<400> 4809

Lys Phe Glu Asn Leu Leu Phe Thr Leu Arg Arg Phe Phe Tyr Asn Ile
 1 5 10 15
 Ser Leu Ile Leu Ile Phe Asp Ile Lys Lys Arg Glu Glu Thr Leu Met
 20 25 30
 Lys Asp Asn Lys Met Leu Phe Ile Ile Phe Met Ile Gly Thr Phe Thr
 35 40 45
 Val Gly Met Ala Glu Tyr Val Val Thr Gly Leu Leu Thr Gln Ile Ala
 50 55 60
 Asp Asp Met Lys Val Ser Ile Ser Ser Ala Gly Leu Leu Ile Ser Val
 65 70 75 80
 Tyr Ala Ile Ser Val Ala Leu Ile Gly Pro Leu Met Arg Ile Ile Thr
 85 90 95
 Leu Lys Val His Ala His Arg Leu Leu Pro Ile Leu Val Ala Ile Phe
 100 105 110
 Ile Ile Ser Asn Leu Val Gly Met Leu Ala Pro Asn Phe Asn Val Leu
 115 120 125
 Leu Leu Ser Arg Leu Met Ser Ala Ala Met His Ala Pro Phe Phe Gly
 130 135 140
 Val Cys Met Ser Val Ala Ala Thr Val Ala Pro Pro Ala Lys Lys Thr
 145 150 155 160
 Gln Ala Ile Ala Leu Val Gln Ala Gly Leu Thr Ile Ala Val Met Leu
 165 170 175
 Gly Val Pro Phe Gly Ser Phe Leu Gly Gly Phe Ala Asn Trp Arg Val
 180 185 190
 Val Phe Gly Phe Met Ile Val Leu Ala Ile Ile Thr Met Leu Gly Met
 195 200 205
 Ile Lys Phe Val Pro Asn Val Ser Leu Ser Ala Glu Ala Asn Ile Ser
 210 215 220
 Lys Glu Leu Thr Val Phe Lys Asn Pro His Ile Leu Ile Val Ile Ala
 225 230 235 240
 Ile Ile Val Phe Gly Tyr Ser Gly Val Phe Thr Thr Tyr Thr Phe Met
 245 250 255
 Glu Pro Met Ile Arg Asp Phe Ser Pro Phe Lys Ile Val Gly Leu Thr
 260 265 270
 Val Cys Leu Phe Met Phe Gly Leu Gly Gly Val Ile Gly Asn Leu Ile
 275 280 285
 Thr Gly Asn Val Pro Glu Asp Lys Leu Thr Lys Asn Leu Tyr Leu Thr
 290 295 300
 Phe Leu Leu Leu Phe Val Thr Ile Ile Leu Phe Val Thr Val Ile Gln
 305 310 315 320
 Asn Ser Ile Leu Ala Leu Ile Ile Cys Phe Leu Phe Gly Phe Gly Thr
 325 330 335
 Phe Gly Thr Thr Pro Leu Leu Asn Ser Lys Ile Ile Leu Ser Ala Lys
 340 345 350
 Glu Ala Pro Leu Leu Ala Ser Thr Leu Ala Ala Ser Ile Phe Asn Val
 355 360 365
 Ala Asn Phe Leu Gly Ala Ile Ile Gly Ser Ile Leu Leu Ser Ile Gly
 370 375 380

1864
 180
 <210> 4809
 <211> 422
 <212> PRT
 <213> S.epidermidis
 <400> 4809
 Lys Phe Glu Asn Leu Leu Phe Thr Leu Arg Arg Phe Phe Tyr Asn Ile
 1 5 10 15
 Ser Leu Ile Leu Ile Phe Asp Ile Lys Lys Arg Glu Glu Thr Leu Met
 20 25 30
 Lys Asp Asn Lys Met Leu Phe Ile Ile Phe Met Ile Gly Thr Phe Thr
 35 40 45
 Val Gly Met Ala Glu Tyr Val Val Thr Gly Leu Leu Thr Gln Ile Ala
 50 55 60
 Asp Asp Met Lys Val Ser Ile Ser Ser Ala Gly Leu Leu Ile Ser Val
 65 70 75 80
 Tyr Ala Ile Ser Val Ala Leu Ile Gly Pro Leu Met Arg Ile Ile Thr
 85 90 95
 Leu Lys Val His Ala His Arg Leu Leu Pro Ile Leu Val Ala Ile Phe
 100 105 110
 Ile Ile Ser Asn Leu Val Gly Met Leu Ala Pro Asn Phe Asn Val Leu
 115 120 125
 Leu Leu Ser Arg Leu Met Ser Ala Ala Met His Ala Pro Phe Phe Gly
 130 135 140
 Val Cys Met Ser Val Ala Ala Thr Val Ala Pro Pro Ala Lys Lys Thr
 145 150 155 160
 Gln Ala Ile Ala Leu Val Gln Ala Gly Leu Thr Ile Ala Val Met Leu
 165 170 175
 Gly Val Pro Phe Gly Ser Phe Leu Gly Gly Phe Ala Asn Trp Arg Val
 180 185 190
 Val Phe Gly Phe Met Ile Val Leu Ala Ile Ile Thr Met Leu Gly Met
 195 200 205
 Ile Lys Phe Val Pro Asn Val Ser Leu Ser Ala Glu Ala Asn Ile Ser
 210 215 220
 Lys Glu Leu Thr Val Phe Lys Asn Pro His Ile Leu Ile Val Ile Ala
 225 230 235 240
 Ile Ile Val Phe Gly Tyr Ser Gly Val Phe Thr Thr Tyr Thr Phe Met
 245 250 255
 Glu Pro Met Ile Arg Asp Phe Ser Pro Phe Lys Ile Val Gly Leu Thr
 260 265 270
 Val Cys Leu Phe Met Phe Gly Leu Gly Gly Val Ile Gly Asn Leu Ile
 275 280 285
 Thr Gly Asn Val Pro Glu Asp Lys Leu Thr Lys Asn Leu Tyr Leu Thr
 290 295 300
 Phe Leu Leu Leu Phe Val Thr Ile Ile Leu Phe Val Thr Val Ile Gln
 305 310 315 320
 Asn Ser Ile Leu Ala Leu Ile Ile Cys Phe Leu Phe Gly Phe Gly Thr
 325 330 335
 Phe Gly Thr Thr Pro Leu Leu Asn Ser Lys Ile Ile Leu Ser Ala Lys
 340 345 350
 Glu Ala Pro Leu Leu Ala Ser Thr Leu Ala Ala Ser Ile Phe Asn Val
 355 360 365
 Ala Asn Phe Leu Gly Ala Ile Ile Gly Ser Ile Leu Leu Ser Ile Gly
 370 375 380

Leu Pro Tyr Ile Gln Ile Thr Leu Ile Ser Gly Gly Ile Ile Val Leu
 385 390 395 400
 Gly Met Leu Leu Asn Leu Val Asn Gln Leu Tyr Glu Lys Lys His Ile
 405 410 415
 Thr Phe Asn Glu Tyr Ser
 420

<210> 4810

<211> 310

<212> PRT

<213> S.epidermidis

<400> 4810

Asp Lys Glu Lys Cys Arg Ile Gln Gly Leu Arg His Met Lys Phe Ala
 1 5 10 15
 Tyr Ile Gln Ser Ile Arg Asn Glu Ile Ser Ile Ile Leu Ile Ile Leu
 20 25 30
 Leu Phe Phe Ala Leu Ile Phe Tyr Val Phe Ser Leu Pro Phe Asp Ala
 35 40 45
 Tyr Val Leu Ala Ile Ser Ile Ile Leu Leu Leu Met Cys Val Arg Trp
 50 55 60
 Trp Ile Lys Tyr Leu Ser Phe Lys Lys Asn Glu His Leu Lys Asp Lys
 65 70 75 80
 Val Ala Tyr Leu Glu His Glu Leu Ala His Val Lys Asn Gln Gln Ile
 85 90 95
 Glu Tyr Arg Asn Asp Val Glu Ser Tyr Phe Leu Thr Trp Val His Gln
 100 105 110
 Ile Lys Thr Pro Ile Thr Ala Ser Gln Leu Leu Leu Glu Arg Asn Glu
 115 120 125
 Glu Asn Val Val Asn Arg Val Arg Gln Glu Ile Val His Ile Asp Asn
 130 135 140
 Tyr Thr Ser Leu Ala Leu Ser Tyr Leu Lys Leu Leu Asn Glu Glu Ser
 145 150 155 160
 Asp Met Thr Ile Thr Lys Val Thr Val Asp Asp Leu Ile Arg Pro Leu
 165 170 175
 Ile Leu Lys Tyr Arg Ile Gln Phe Ile Glu Gln Lys Thr Gln Ile His
 180 185 190
 Tyr Glu Lys Ser Glu Asp Ile Ile Leu Thr Asp Ala Gln Trp Ala Ser
 195 200 205
 Ile Met Ile Glu Gln Leu Leu Asn Asn Ala Leu Lys Tyr Ala Lys Gly
 210 215 220
 Lys Asp Ile Trp Ile Asp Phe Asp Val Ala Asn Gln Thr Leu Gln Ile
 225 230 235 240
 Lys Asp Asn Gly Ile Gly Ile Ser Lys Ala Asp Ile Pro Lys Ile Phe
 245 250 255
 Asp Lys Gly Tyr Ser Gly Phe Asn Gly Arg Leu Asn Glu Gln Ser Thr
 260 265 270
 Gly Ile Gly Leu Phe Ile Val Gln His Ile Ala Asn His Leu Asn Ile
 275 280 285
 Gln Val Thr Val Gln Ser Glu Leu Asn His Gly Thr Val Phe Phe Ile
 290 295 300
 His Phe Thr Lys Glu Lys
 305 310

<210> 4811

<211> 554

Leu Gly Val Ala Leu Pro Trp Ala Ile Ser Ala Ala Leu Val Arg Pro
 420 425 430
 Asn Thr Gln Val Val Ser Val Ala Gly Asp Gly Gly Phe Leu Phe Ser
 435 440 445
 Gly Gln Glu Leu Glu Thr Ala Val Arg Lys Asn Leu Asn Ile Ile Gln
 450 455 460
 Leu Ile Trp Asn Asp Gly Arg Tyr Asn Met Val Glu Phe Gln Glu Glu
 465 470 475 480
 Met Lys Tyr Lys Arg Ser Ser Gly Val Glu Phe Gly Pro Val Asp Tyr
 485 490 495
 Val Lys Tyr Ala Glu Ser Phe Gly Ala Lys Gly Leu Arg Val Thr Asn
 500 505 510
 Gln Glu Glu Leu Glu Ala Ala Leu Lys Glu Gly Tyr Glu Thr Asp Gly
 515 520 525
 Pro Val Leu Ile Asp Ile Pro Val Asn Tyr Ala Asp Asn Val Lys Leu
 530 535 540
 Ser Thr Asn Met Leu Pro Asn Ala Leu Asn
 545 550

<210> 4812

<211> 401

<212> PRT

<213> S.epidermidis

<400> 4812

Leu Ile Gly Lys Gly Asp Leu Ile Ile Met Ser Asn Asn Glu Thr Ile
 1 5 10 15
 Thr Asn Tyr Thr Ile Lys Pro His Gly Gly Glu Leu Ile Asn Arg Val
 20 25 30
 Val Glu Gly Asn Glu Arg Glu Arg Leu Ile Glu Glu Ala Leu Lys Phe
 35 40 45
 Lys Pro Ile Thr Leu Asn Pro Trp Gly Ile Ser Asp Leu Glu Leu Ile
 50 55 60
 Gly Ile Gly Gly Phe Ser Pro Leu Thr Gly Phe Met Asn Lys Glu Asp
 65 70 75 80
 Tyr Thr Lys Val Ile Glu Glu Thr His Leu Ser Asn Gly Leu Val Trp
 85 90 95
 Ser Ile Pro Ile Thr Leu Pro Val Thr Glu Ser Glu Ala Asp Lys Leu
 100 105 110
 Glu Ile Gly Asp Asp Ile Ala Leu Tyr Gly Glu Asp Gly Gln Leu Tyr
 115 120 125
 Gly Thr Leu Lys Leu Glu Glu Lys Tyr Thr Tyr Asp Lys Glu Lys Glu
 130 135 140
 Ala Arg Leu Val Tyr Gly Thr Thr Glu Glu Ala His Pro Gly Val Lys
 145 150 155 160
 Lys Val Tyr Glu Lys Gly Asn Ile Tyr Leu Gly Gly Pro Ile Lys Leu
 165 170 175
 Leu Asn Arg Pro Lys His Asp Ala Phe Ser Asn Tyr His Leu Asp Pro
 180 185 190
 Ser Glu Thr Arg Gln Leu Phe His Asp Leu Gly Trp Lys Thr Val Val
 195 200 205
 Gly Phe Gln Thr Arg Asn Pro Val His Arg Ala His Glu Tyr Ile Gln
 210 215 220
 Lys Ser Ala Leu Glu Ile Val Asp Gly Leu Leu Leu Asn Pro Leu Val,
 225 230 235 240
 Gly Glu Thr Lys Ser Asp Asp Ile Pro Ala Asp Val Arg Met Glu Ser

				245					250					255			
Tyr	Glu	Val	Ile	Leu	Lys	Asn	Tyr	Tyr	Pro	Glu	Asp	Arg	Ala	Arg	Leu		
			260					265					270				
Val	Ile	Tyr	Pro	Ala	Ala	Met	Arg	Tyr	Ala	Gly	Pro	Arg	Glu	Ala	Ile		
		275					280					285					
Leu	His	Ala	Thr	Val	Arg	Lys	Asn	Tyr	Gly	Cys	Thr	His	Phe	Ile	Val		
	290					295					300						
Gly	Arg	Asp	His	Ala	Gly	Val	Gly	Asp	Tyr	Tyr	Gly	Thr	Tyr	Glu	Ala		
305					310					315					320		
Gln	Glu	Leu	Ile	Thr	Gln	Phe	Glu	Asp	Glu	Leu	Gly	Ile	Gln	Ile	Leu		
			325						330					335			
Lys	Phe	Glu	His	Ala	Phe	Tyr	Cys	Glu	Ala	Cys	Gly	Asn	Met	Ala	Thr		
		340						345					350				
Ala	Lys	Thr	Cys	Pro	His	Asp	Ala	Ser	Gln	His	Leu	His	Leu	Ser	Gly		
		355					360					365					
Thr	Lys	Val	Arg	Glu	Lys	Leu	Arg	Asn	Gly	Glu	Ser	Leu	Pro	Thr	Lys		
	370					375					380						
Phe	Ser	Arg	Pro	Glu	Val	Ala	Glu	Val	Leu	Ile	Lys	Gly	Leu	Arg	Glu		
385					390					395					400		
Lys																	

<210> 4813

<211> 231

<212> PRT

<213> S.epidermidis

<400> 4813

Gly	Glu	Cys	Leu	Met	Met	Ala	Lys	Ser	Tyr	Asp	Tyr	Gln	Ser	Ala	Phe		
1			5					10					15				
Asp	Ile	Ile	Gly	Pro	Val	Met	Met	Gly	Pro	Ser	Ser	Ser	His	Thr	Ala		
		20						25					30				
Gly	Ala	Val	Lys	Ile	Gly	Asn	Ser	Ala	Arg	Ala	Val	Leu	Gly	Asp	Met		
		35				40						45					
Pro	Lys	His	Ile	Glu	Ile	Arg	Tyr	Tyr	Glu	Ser	Phe	Ala	Lys	Thr	His		
	50					55					60						
Gln	Gly	His	Gly	Thr	Asp	Val	Ala	Ile	Val	Gly	Gly	Ala	Met	Gly	Tyr		
65					70					75				80			
Ser	Thr	Phe	Asp	Ser	Arg	Ile	Lys	Ser	Ser	Leu	Asp	Ile	Ala	Lys	Asp		
			85					90					95				
Glu	Asn	Ile	Thr	Ile	Asp	Ile	Ile	Glu	Asp	Glu	Gly	Glu	Ser	Ile	Gly		
		100						105					110				
Gln	His	Pro	Asn	Cys	Ala	Tyr	Ile	Lys	Ala	Asn	Thr	Lys	Asp	Gly	Arg		
		115					120					125					
Tyr	Ile	Glu	Val	Ile	Gly	Ile	Ser	Ile	Gly	Gly	Gly	Thr	Ile	Lys	Leu		
	130					135					140						
Lys	Gly	Ile	Asn	Val	Asn	Gly	Leu	Asn	Val	Glu	Leu	Asn	His	Gly	Leu		
145					150					155					160		
Pro	Met	Leu	Val	Ile	Asp	Gly	Asn	Met	Asn	Lys	Ala	Lys	Ile	Asn	His		
			165						170					175			
Leu	Ile	Asn	Asp	Leu	Ser	Asp	Met	Asp	Leu	Asp	Leu	Gly	Glu	Glu	Leu		
		180						185					190				
Ile	Glu	Thr	Asn	Asp	Asn	Glu	Gly	Leu	Val	Val	Phe	Pro	Leu	Asn	Lys		
		195					200					205					
Ala	Ile	Ser	Glu	Ser	Ala	Leu	Asn	Ile	Ile	Lys	Asp	Lys	His	Ser	Asp		
	210					215					220						

Leu Asn Val Ser Tyr Ile Lys
225 230

<210> 4814

<211> 357

<212> PRT

<213> S.epidermidis

<400> 4814

Arg	Ser	Leu	Lys	Leu	Tyr	Gly	Arg	Asp	Ile	Asp	His	Asn	Ser	Pro	Phe
1			5						10					15	
Tyr	Lys	Gly	Asn	Lys	Ser	Val	Arg	Glu	Gly	Asp	Ile	Val	Lys	Gln	Asp
		20						25					30		
Lys	Leu	Ala	Asn	Thr	Leu	Thr	Lys	Ile	Lys	Asp	Lys	Gly	Pro	Asp	Tyr
		35					40					45			
Phe	Tyr	Glu	Asp	Ile	Gly	Lys	Ser	Val	Ser	Lys	Gln	Leu	Asp	Asn	Lys
	50					55					60				
Leu	Thr	Glu	Arg	Asp	Phe	Lys	Glu	Phe	Lys	Thr	Glu	Glu	Lys	Glu	Ala
65					70					75					80
Val	Ser	Thr	Asp	Tyr	Lys	Asn	Asn	Gln	Val	Tyr	Ser	Ala	Pro	Asn	Pro
				85					90					95	
Leu	Gly	Gly	Thr	Leu	Met	Leu	Gln	Gly	Leu	Lys	Ile	Asp	Glu	Lys	Glu
			100					105					110		
Asn	Val	Asp	Asn	Met	Asp	Arg	Asn	Asn	Phe	Ile	Thr	Ala	Met	Ile	Lys
		115					120					125			
Ser	Arg	Asp	Val	Met	Tyr	Lys	Asn	Arg	Asp	Ile	Val	Asn	Gly	Asn	Glu
	130					135					140				
Pro	Ser	Asn	Glu	Gln	His	Leu	Thr	Asp	Asp	Tyr	Leu	Leu	Gly	Glu	Leu
145					150					155					160
Asn	Lys	Val	Asn	Ile	Gly	Glu	Asn	Thr	Asp	Asn	Gly	Ser	Asp	Phe	Asp
			165					170						175	
Gln	Ile	Arg	Thr	Asp	Asn	Thr	Ser	Thr	Thr	His	Phe	Val	Val	Ile	Asp
			180					185					190		
Lys	Asn	Gly	Lys	Leu	Ala	Ser	Thr	Thr	Asn	Thr	Leu	Ser	Ser	Tyr	Phe
		195					200					205			
Gly	Thr	Gly	Asp	Tyr	Met	Lys	Glu	Gly	Phe	Tyr	Met	Asn	Asn	Ser	Leu
	210					215					220				
Gly	Asp	Phe	Ser	Lys	Asp	Lys	Ser	Ser	Pro	Asn	His	Gly	Glu	Pro	His
225					230					235					240
Lys	Ala	Pro	Arg	Ser	Phe	Ile	Ser	Pro	Ser	Val	Ile	Val	Gly	Pro	Asn
				245					250					255	
Phe	Tyr	Met	Gly	Ile	Gly	Thr	Pro	Gly	Gly	Asn	Lys	Ile	Pro	Thr	Ile
		260						265					270		
Leu	Asn	Glu	Val	Ile	Val	Asp	Tyr	Leu	Asn	Ser	Asp	Gly	Ser	Leu	Gln
	275						280					285			
Glu	Ser	Ile	Asn	Lys	Pro	Arg	Phe	Tyr	Asn	Asp	Gly	Gly	Thr	Ile	Phe
	290					295					300				
Tyr	Glu	Asn	Ala	Met	Thr	Asp	Glu	Asp	Ile	Asn	Ile	Phe	Lys	Ser	Leu
305					310					315					320
Gly	Tyr	Gly	Val	Glu	Glu	Lys	His	Asn	Asp	Pro	Asn	Phe	Gly	Ser	Val
				325					330					335	
Gln	Gly	Ala	Val	Tyr	Asp	Lys	Asp	Lys	Asn	Thr	Val	Asp	Val	Gly	His
			340					345					350		
Asp	Val	Gly	Asn	Arg											
			355												

Sequence = 60000000

<210> 4815
 <211> 80
 <212> PRT
 <213> S.epidermidis

<400> 4815

Phe	Gln	Leu	Asn	Pro	Asn	Lys	Phe	Phe	Phe	Phe	Phe	Phe	Glu	Ser	Leu
1			5					10					15		
Trp	Gly	Ala	Asn	Lys	Lys	Gly	Asn	Lys	Lys	Gly	Val	Ile	Ser	Gly	Ala
		20					25						30		
Phe	Phe	Phe	Tyr	Ser	Ile	Lys	Pro	Tyr	Leu	Ser	Asn	Ser	Thr	Thr	Glu
		35					40					45			
Gly	Asp	Arg	Trp	Val	Phe	Gln	Leu	Leu	Ile	Gly	Ala	Ile	Ser	Arg	Cys
	50					55					60				
Arg	Lys	Pro	Val	Gly	Pro	Leu	Ala	Asp	Lys	Leu	Gly	Ser	Ser	Thr	Val
65					70					75					80

<210> 4816
 <211> 274
 <212> PRT
 <213> S.epidermidis

<400> 4816

Asn	Glu	Leu	Lys	Thr	Leu	Asn	His	Leu	Asn	Lys	Met	Lys	Ala	Ser	Gln
1			5						10					15	
Gln	Lys	Ile	Ser	Met	Val	Thr	Ala	Tyr	Asp	Tyr	Pro	Ser	Ala	Lys	Gln
		20						25					30		
Ala	Gln	Gln	Ala	Glu	Ile	Asp	Met	Ile	Leu	Val	Gly	Asp	Ser	Leu	Gly
		35					40					45			
Met	Thr	Val	Leu	Gly	Tyr	Asp	Ser	Thr	Val	Gln	Val	Thr	Leu	Asn	Asp
	50					55					60				
Met	Ile	His	His	Gly	Lys	Ala	Val	Lys	Arg	Gly	Ala	Ser	Asp	Thr	Phe
65					70					75					80
Ile	Val	Val	Asp	Met	Pro	Ile	Gly	Thr	Val	Gly	Leu	Ser	Asp	Glu	Glu
			85						90					95	
Asp	Leu	Lys	Asn	Ala	Leu	Lys	Leu	Tyr	Gln	Asn	Thr	Asn	Ala	Asn	Ala
			100					105					110		
Val	Lys	Val	Glu	Gly	Ala	His	Leu	Thr	Ser	Phe	Ile	Gln	Lys	Ala	Thr
		115					120					125			
Lys	Met	Gly	Ile	Pro	Val	Val	Ser	His	Leu	Gly	Leu	Thr	Pro	Gln	Ser
	130					135						140			
Val	Gly	Val	Met	Gly	Tyr	Lys	Leu	Gln	Gly	Asp	Thr	Lys	Thr	Ala	Ala
145					150					155					160
Met	Gln	Leu	Ile	Lys	Asp	Ala	Lys	Ala	Met	Glu	Thr	Ala	Gly	Ala	Val
			165						170					175	
Val	Leu	Val	Leu	Glu	Ala	Ile	Pro	Ser	Asp	Leu	Ala	Arg	Glu	Ile	Ser
		180						185					190		
Gln	Gln	Leu	Thr	Ile	Pro	Val	Ile	Gly	Ile	Gly	Ala	Gly	Lys	Asp	Thr
		195					200					205			
Asp	Gly	Gln	Val	Leu	Val	Tyr	His	Asp	Met	Leu	Asn	Tyr	Gly	Val	Asp
	210					215					220				
Arg	His	Ala	Lys	Phe	Val	Lys	Gln	Phe	Ala	Asp	Phe	Ser	Ser	Gly	Ile
225					230					235					240
Asp	Gly	Leu	Arg	Gln	Tyr	Asn	Glu	Glu	Val	Lys	Ala	Gly	Thr	Phe	Pro
			245						250					255	
Ser	Glu	Asn	His	Thr	Tyr	Lys	Lys	Arg	Ile	Met	Asp	Glu	Val	Glu	Gln

His Asp 260 265 270

<210> 4817
 <211> 172
 <212> PRT
 <213> S.epidermidis

<400> 4817
 Tyr Ile Met Lys Arg Phe Ala Lys Ala Phe Val Val Ser Gly Ile Thr
 1 5 10 15
 Leu Gly Ala Val Leu Gly Leu Asn Val Thr Glu His Asn Gly Val Ser
 20 25 30
 Asn Glu Ala Lys Ala Gln Thr Ala His Ser Tyr Trp Tyr Lys Tyr Asn
 35 40 45
 Gly Tyr Thr Ala Ser Gly Gly Asp Phe Val Leu Ser Asn Ser Phe Tyr
 50 55 60
 Gln Gly Leu Lys Ala Gly Asn Val Thr Phe Asn Gly Ile Lys Val Asn
 65 70 75 80
 Gln Lys Tyr Glu Ser Lys Thr Ala Thr Lys Lys Ile Tyr Asp Gln Thr
 85 90 95
 Phe Gln Gln Ile Asn Gly Asn Lys Ala Asn Asn Val Gln Phe Lys Ile
 100 105 110
 Ala Ser Arg Thr Val Thr Leu Asp Gln Val Lys Gln Lys Tyr Gly Lys
 115 120 125
 Asn Tyr Asn Tyr Gln Pro Ser Leu Ser Lys Asn Lys Thr Ser Lys Thr
 130 135 140
 Asp Gly Leu Tyr Gly Tyr Gln Val Gly Lys Gly Asn Ile Val Phe His
 145 150 155 160
 Val Lys Asp Gly Tyr Val Thr Ser Ala Thr Leu Ser
 165 170

<210> 4818
 <211> 223
 <212> PRT
 <213> S.epidermidis

<400> 4818
 Thr Tyr Met Lys Ile Phe Ile Val Glu Asp Asp Leu Val Ile Ala Glu
 1 5 10 15
 Ser Leu Ala Asn Glu Leu Ser Lys Trp Asn Tyr Glu Val His Val Val
 20 25 30
 Asp Asn Phe Glu Lys Ile Met Glu Asp Phe Arg Arg Val Glu Pro Gln
 35 40 45
 Leu Val Leu Leu Asp Ile Asn Leu Pro Thr Leu Asn Gly Phe His Trp
 50 55 60
 Cys Gln Glu Met Arg Lys Val Ser His Val Pro Ile Met Phe Ile Ser
 65 70 75 80
 Ser Arg Thr Asp Asn Met Asp Gln Ile Leu Ala Ile Gln Met Gly Gly
 85 90 95
 Asp Asp Phe Ile Glu Lys Pro Phe Asn Leu Ser Leu Thr Val Ala Lys
 100 105 110
 Ile Gln Ala Leu Leu Arg Arg Thr Tyr Asp Leu Ser Ile Ala Arg Asp
 115 120 125
 Glu Ile Ala Val Lys Gly Cys Lys Leu Ile Val Asp Glu Ala Lys Leu

130		135		140
Ser Lys Asp Asn Glu His Val Gln Leu Ser Leu Thr Glu Leu Gln Ile				
145		150		155
Leu Lys Leu Leu Phe Gln Asn Glu Asn Lys Tyr Val Ser Arg Thr Ala				
		165		170
Leu Ile Glu Lys Cys Trp Glu Ser Glu Asn Phe Ile Asp Asp Asn Thr				
		180		185
Leu Ala Val Asn Met Thr Arg Leu Arg Lys Lys Leu Leu Ser Ile Gly				
		195		200
Val Asp Asp Leu Ile Glu Thr Lys Lys Asn Val Gly Tyr Arg Val				
210		215		220

<210> 4819

<211> 231

<212> PRT

<213> S.epidermidis

<400> 4819

Ser Leu Met Asn Glu Tyr Leu Gln Ala Val Leu Met Ile Leu Leu Thr				
1		5		10
Ile Val Leu Tyr Tyr Val Ser Lys Lys Ile Gln Asp Lys Tyr Asn Asn				
		20		25
Pro Leu Leu Asn Pro Ala Leu Ile Ala Ser Ile Ala Ile Ile Ile Val				
		35		40
Leu Leu Val Cys Gly Val Ser Tyr Lys Gly Tyr Met Lys Gly Gly Thr				
		50		55
Trp Ile Asn His Val Leu Asn Ala Thr Val Val Cys Leu Ala Tyr Pro				
65		70		75
Leu Tyr Gln Asn Lys Lys Lys Ile Lys Lys Tyr Leu Thr Ile Ile Phe				
		85		90
Thr Ser Val Leu Thr Gly Val Val Leu Asn Phe Val Leu Val Phe Thr				
		100		105
Thr Leu Lys Ile Phe Gly Tyr Ser Lys Asp Thr Ile Val Thr Leu Leu				
		115		120
Pro Arg Ser Ile Thr Ala Ala Val Gly Ile Glu Val Ser Gln Glu Leu				
		130		135
Gly Gly Thr Asp Thr Ile Thr Val Leu Phe Ile Ile Thr Thr Gly Leu				
145		150		155
Ile Gly Ser Ile Leu Gly Ser Met Leu Leu Arg Met Gly Gly Phe Lys				
		165		170
Ser Ser Ile Ala Arg Gly Leu Thr Tyr Gly Asn Ala Ser His Ala Phe				
		180		185
Gly Thr Ala Lys Ala Leu Glu Leu Asp Ile Glu Ser Gly Ala Phe Ser				
		195		200
Ser Ile Gly Met Ile Leu Thr Ala Val Ile Ser Ser Val Leu Ile Pro				
		210		215
Val Leu Ile Leu Leu Phe Tyr				220
225		230		

<210> 4820

<211> 449

<212> PRT

<213> S.epidermidis

<400> 4820

Glu Leu Met Lys Gln Tyr Asp Val Val Phe Leu Gly Ser Gly His Ala

1 5 10 15
 Ala Trp His Ala Ala Leu Thr Leu Lys Gln Ser Gly Lys Gln Val Ala
 20 25 30
 Ile Val Glu Lys Asp Thr Ile Ala Gly Thr Cys Thr Asn Tyr Gly Cys
 35 40 45
 Asn Ala Lys Ile Leu Leu Glu Gly Pro Tyr Glu Val Leu Glu Glu Ala
 50 55 60
 Lys Gln Tyr Pro Asn Ile Ile Asp Ser His Asn Leu Glu Val Asn Trp
 65 70 75 80
 Lys Asn Leu Met Arg Tyr Lys Glu Lys Val Ile Asn Pro Met Ser Glu
 85 90 95
 Thr Leu Thr Ser Met Phe Glu Gln Gln Glu Ile Asp Val Ile Met Gly
 100 105 110
 Lys Gly Lys Leu Val Asp Ala His Thr Ile Glu Val Asn Asn Thr Thr
 115 120 125
 Leu Gln Ser Asp Tyr Ile Val Ile Ala Thr Gly Gln His Ser His Gln
 130 135 140
 Leu Asp Ile Glu Gly Lys Glu Tyr Thr His Asp Ser Arg Glu Phe Leu
 145 150 155 160
 Ser Met Gln Ser Leu Pro Asp Ser Ile Thr Phe Ile Gly Ala Gly Ile
 165 170 175
 Ile Ser Ile Glu Phe Ala Ser Ile Met Ile Lys Ser Gly Val Glu Val
 180 185 190
 Asn Val Ile His His Thr Asn Gln Ala Leu Glu Gly Phe Asn Glu Ser
 195 200 205
 His Val Asn Lys Leu Ile Gln Lys Leu Lys Asp Glu Gly Val Lys Phe
 210 215 220
 Tyr Phe Ser Glu Asn Thr Lys Ser Val Lys Pro Asn Ala Gln Arg Phe
 225 230 235 240
 Ile Val Glu Thr Glu Ser Gly Lys Met Ile Glu Thr Asp Tyr Val Leu
 245 250 255
 Asp Ala Thr Gly Arg Lys Pro Asn Val Gln Gln Ile Gly Leu Glu Lys
 260 265 270
 Val Gly Ile Gln Phe Ser Asp Arg Gly Ile Glu Val Asp Asp Tyr Leu
 275 280 285
 Arg Thr Asn Val Lys Asn Ile Tyr Ala Ser Gly Asp Val Ile Asn Lys
 290 295 300
 Met Ile Pro Lys Leu Thr Pro Thr Ala Thr Phe Glu Ser Asn Tyr Ile
 305 310 315 320
 Ala Ala His Ile Leu Gly Leu Asn Thr Asp Ala Ile Gln Tyr Pro Pro
 325 330 335
 Ile Pro Ser Val Leu Tyr Ser Leu Pro Arg Leu Ser Gln Ile Gly Val
 340 345 350
 Thr Val Ser Glu Ala Lys Lys Asp Asp Thr Tyr Met Ile Lys Asp Ile
 355 360 365
 Pro Phe Gly Arg Gln Met Val Phe Glu Tyr Gln Asn Glu Thr Glu Ala
 370 375 380
 Glu Met Ser Ile Val Leu Asp Ser His Lys Arg Leu Val Gly Ala Glu
 385 390 395 400
 Ile Tyr Gly Asn Asp Ala Gly Asp Leu Val Asn Leu Leu Val Phe Ile
 405 410 415
 Ile Asn Gln Lys Leu Thr Ala Gln Asp Leu Asn Lys Asn Ile Phe Ala
 420 425 430
 Phe Pro Gly Ala Ser Ser Gly Val Ile Asp Leu Leu Lys Leu Ala Met
 435 440 445
 Met

<210> 4821
 <211> 381
 <212> PRT
 <213> S.epidermidis

<400> 4821

Ile	Lys	Met	Asn	Met	Lys	Lys	Gly	Val	Ser	Gln	Leu	Thr	Leu	Gln	Thr
1			5						10					15	
Leu	Ser	Leu	Val	Ala	Gly	Phe	Met	Ala	Trp	Ser	Ile	Ile	Ser	Pro	Leu
			20					25					30		
Met	Pro	Phe	Ile	Ser	Gln	Asp	Val	Asp	Ile	Ser	Pro	Gly	Gln	Ile	Ser
		35					40					45			
Val	Ile	Leu	Ala	Ile	Pro	Val	Ile	Leu	Gly	Ser	Val	Leu	Arg	Val	Pro
	50					55					60				
Phe	Gly	Tyr	Leu	Thr	Asn	Ile	Val	Gly	Ala	Lys	Trp	Val	Phe	Phe	Trp
65					70					75					80
Ser	Phe	Ile	Val	Leu	Leu	Leu	Pro	Ile	Phe	Leu	Leu	Gly	Gln	Ala	Gln
			85						90				95		
Ser	Pro	Gly	Met	Leu	Met	Leu	Ser	Gly	Phe	Phe	Leu	Gly	Ile	Gly	Gly
			100					105					110		
Ala	Phe	Phe	Ser	Val	Gly	Val	Thr	Ser	Val	Pro	Lys	Tyr	Phe	Ser	Lys
		115					120					125			
Asp	Lys	Val	Gly	Leu	Ala	Asn	Gly	Ile	Tyr	Gly	Val	Gly	Asn	Ile	Gly
	130					135					140				
Thr	Ala	Val	Ser	Ser	Phe	Cys	Ala	Pro	Val	Leu	Ala	Gly	Ala	Ile	Gly
145					150					155					160
Trp	Gln	Asn	Thr	Val	Arg	Ser	Tyr	Leu	Ile	Ile	Leu	Ser	Ile	Phe	Ala
			165						170					175	
Ile	Leu	Met	Phe	Phe	Leu	Gly	Asp	Lys	Asn	Glu	Pro	Lys	Val	Lys	Ile
		180						185					190		
Pro	Leu	Met	Ala	Gln	Val	Lys	Asp	Leu	Ser	Lys	Asn	Tyr	Lys	Leu	Tyr
		195					200					205			
Tyr	Leu	Ser	Leu	Trp	Tyr	Phe	Ile	Thr	Phe	Gly	Ala	Phe	Val	Ala	Phe
	210					215					220				
Gly	Ile	Phe	Leu	Pro	Asn	Phe	Leu	Val	Asp	His	Phe	Ser	Ile	Asp	Lys
					230					235				240	
Val	Asp	Ala	Gly	Ile	Arg	Ser	Gly	Ile	Phe	Ile	Ala	Leu	Ala	Thr	Phe
			245						250					255	
Leu	Arg	Pro	Val	Gly	Gly	Val	Ile	Gly	Asp	Lys	Phe	Asn	Ala	Val	Gln
			260					265					270		
Ala	Leu	Ile	Ile	Asp	Phe	Val	Ile	Met	Ile	Ile	Gly	Ala	Leu	Ile	Leu
		275					280					285			
Ser	Leu	Ser	Ser	His	Ile	Val	Leu	Phe	Thr	Ile	Gly	Cys	Leu	Ala	Ile
	290					295					300				
Ser	Ile	Cys	Ala	Gly	Ile	Gly	Asn	Gly	Leu	Ile	Phe	Lys	Leu	Val	Pro
	305					310				315					320
Ser	Tyr	Phe	Ser	Lys	Glu	Thr	Arg	Phe	Ser	Glu	Trp	Tyr	Cys	Ile	His
			325						330					335	
Asp	Gly	Arg	Asn	Arg	Arg	Phe	Leu	Pro	Thr	Thr	Gly	Asp	Tyr	Phe	Cys
			340					345					350		
Asn	Glu	Tyr	His	Trp	Phe	Lys	Ser	Ser	Arg	Phe	Leu	Leu	Leu	Gly	Tyr
		355					360					365			
Ile	Trp	Cys	Asn	Cys	Ser	Tyr	Tyr	Asn	Asp	Ser	Phe	Lys			
	370					375						380			

<210> 4822
 <211> 155
 <212> PRT
 <213> S.epidermidis

<400> 4822
 Ile Glu Met Lys Gly Cys Leu Met Leu Ile Ser Asp Thr Asn Lys Thr
 1 5 10 15
 Tyr Ile Ile Glu Glu Thr Ser Asn Ser Phe Thr Ile Glu Lys Asn Asn
 20 25 30
 Asp Gln Gln His Tyr Glu Val Leu Glu Ser Ile Asn Ser Leu Ser Asn
 35 40 45
 Asp Ser Phe Cys Val Leu Asn His Leu Phe Val Asn Gly Gly Asn Glu
 50 55 60
 Glu Val Phe Glu Ser Arg Phe Leu Lys Arg Asn Gln His Leu Gln Asp
 65 70 75 80
 Val Pro Gly Phe Lys Ala Leu Arg Phe Leu Arg Pro Val Val Lys Gly
 85 90 95
 Arg His Tyr Ile Ile Ile Thr Leu Trp Asn Ser Arg Gln Ala Phe Tyr
 100 105 110
 Asp Trp Gln Asn Ser Gln Ala Tyr Ala Gln Thr His Lys Lys Arg Gly
 115 120 125
 Thr Gln Lys Gly Val Asp His Arg Ile Val Asn Arg Asp Leu Ser Tyr
 130 135 140
 Asn Ile Arg Ile Glu Leu Glu Ser Leu Asn Asn
 145 150 155

<210> 4823
 <211> 57
 <212> PRT
 <213> S.epidermidis

<400> 4823
 Leu Glu Met Lys Asn Tyr Ser His Arg Lys Leu Ala Val Glu Pro Ile
 1 5 10 15
 Trp Gly Phe Met Lys Val Ile Leu Gly Phe Thr Gln Val Ser Ala Arg
 20 25 30
 Ser Ile Asn Lys Val Lys Gly Lys Lys Phe Leu Leu Met Val Leu Asn
 35 40 45
 Ile Lys Lys Asn Ser Asp Ser Glu Ile
 50 55

<210> 4824
 <211> 538
 <212> PRT
 <213> S.epidermidis

<400> 4824
 Lys Gly Met Asn Lys Asn Ile Lys Met Lys Asn Lys Arg Lys Ile Asn
 1 5 10 15
 Asn Thr Leu Val Tyr Thr Ile Ser Val Leu Ile Ile Val Val Ile Thr
 20 25 30
 Leu Ile Ala Gly Ile Phe Pro Lys Ala Phe Gly Met Tyr Ala Gln Ser
 35 40 45
 Val Tyr Asp Trp Ile Thr Asn Trp Phe Gly Trp Leu Phe Leu Ile Ile

50		55		60
Val Phe Ile Leu Asp	Val Phe Leu Ile Phe Leu Ala Phe Ser Arg Tyr			
65	70	75	80	
Gly Arg Phe Lys Leu Gly Ser Asp Glu Glu Glu Pro Glu Phe Ser Met				
	85	90	95	
Leu Ser Trp Ile Gly Met Leu Phe Ser Ala Gly Leu Gly Val Gly Ile				
	100	105	110	
Val Phe Trp Gly Val Ala Glu Pro Leu Thr His Tyr Leu His Ser Pro				
	115	120	125	
Phe Pro Gly Lys Ile Ala Asp His Ser Glu Glu Ser Ala Arg Val Ala				
	130	135	140	
Met Gly Tyr Thr Phe Phe His Trp Gly Ile Ser Gln Trp Ser Ile Phe				
	145	150	155	160
Ala Ile Ser Gly Leu Ile Val Ala Tyr Phe Gln Phe Arg Lys Gln Arg				
	165	170	175	
Asn Gly Leu Ile Ser Thr Ala Met Glu Pro Val Phe Gly Glu Ala Tyr				
	180	185	190	
Lys Arg Pro Phe Arg Asn Ile Ile Asp Ile Leu Ala Ile Ile Ala Thr				
	195	200	205	
Val Met Gly Ile Ala Thr Ser Ile Gly Leu Gly Ile Met Gln Ile Gly				
	210	215	220	
Gly Gly Leu Asn His Leu Phe Asp Val Pro Asn Asn Asn Phe Thr Lys				
	225	230	235	240
Ile Leu Ile Thr Ile Leu Met Val Ala Ile Phe Leu Gly Ser Ser Leu				
	245	250	255	
Thr Gly Leu Asn His Gly Val Lys Trp Leu Ser Asn Leu Asn Ile Leu				
	260	265	270	
Leu Gly Ala Ile Leu Leu Ile Phe Ile Leu Ile Phe Gly Asp Leu Lys				
	275	280	285	
Phe Ile Leu Glu Ser Tyr Thr Leu Ala Ile Ser Asp Tyr Leu Gln His				
	290	295	300	
Phe Ile Glu Tyr Ser Leu Arg Val Asn Pro Tyr Ser Gly Asp Asp Ser				
	305	310	315	320
Trp Ile Gln Gln Trp Thr Val Phe Tyr Trp Ala Trp Val Ile Ser Trp				
	325	330	335	
Ser Pro Phe Ile Gly Gly Phe Val Ala Arg Val Ser Arg Gly Arg Thr				
	340	345	350	
Ile Arg Glu Phe Val Val Gly Val Leu Ile Ile Pro Pro Leu Ile Ser				
	355	360	365	
Phe Thr Trp Ile Ala Gly Phe Gly Gly Thr Ala Ile Lys Leu Ala Leu				
	370	375	380	
Asn His Asn Asp Lys Leu Val His Ile Val Asp Lys Asp Tyr Thr Val				
	385	390	395	400
Ala Leu Phe Glu Leu Leu Ser His Phe Pro Leu Ser Glu Val Thr Ser				
	405	410	415	
Ser Leu Ala Ile Val Leu Ile Phe Ile Phe Ile Val Thr Ser Ala Asp				
	420	425	430	
Ser Thr Thr His Ile Val Ala Gly Met Ala Thr Gly Gly Ser Ile Asn				
	435	440	445	
Pro Thr Leu Lys His Lys Val Leu Trp Gly Leu Leu Ile Gly Ala Ile				
	450	455	460	
Ser Val Ala Met Thr Ile Ala Gly Gly Leu Lys Ser Leu Gln Thr Ala				
	465	470	475	480
Ser Val Ile Thr Gly Leu Pro Phe Ser Ile Ile Leu Leu Leu Met Ile				
	485	490	495	
Phe Ser Leu Met Arg Ala Leu Lys Arg Glu Pro Ile His His Phe Lys				

Gly Ser Phe Ile Gly Ile Ser Gly Gln His Thr Lys Ala Asp Phe Ala
 355 360 365
 Arg Ala Val Ile Glu Gly Ile Thr Tyr Ser Leu Tyr Asp Ser Ile Lys
 370 375 380
 Ile Met Arg Arg Ala Gly His Glu Met Asn Ser Ile Thr Ser Ile Gly
 385 390 395 400
 Gly Gly Ala Lys Ser Arg Phe Trp Leu Gln Leu Gln Ala Asp Ile Phe
 405 410 415
 Asn Val Gln Ile Lys Arg Leu Lys His Glu Glu Gly Pro Ser Met Gly
 420 425 430
 Ala Ala Ile Leu Ala Ala Tyr Gly Leu Gly Trp Phe Lys Thr Ile Glu
 435 440 445
 Ser Cys Val Glu Ala Phe Ile Lys Val Asp Glu Val Phe Glu Pro Asn
 450 455 460
 Asn Glu Asn His Asp Leu Tyr Glu Gln Tyr Tyr Ser Val Tyr Glu Ala
 465 470 475 480
 Ile Tyr Lys Gln Thr Lys Gln Leu Thr Ala Asp Leu Leu Thr Ile Thr
 485 490 495
 Asn

<210> 4826
 <211> 45
 <212> PRT
 <213> S.epidermidis

<400> 4826
 Thr Asn Thr Asn Lys Val Ser Asn His Cys Asn Gln Asp Ile Ile Tyr
 1 5 10 15
 His Tyr Phe Asp Leu Leu Asn Leu Tyr His Tyr Ile Thr Ile Ser Leu
 20 25 30
 Gly Ile Val Ala Asn Lys Ile Lys Lys Thr Leu Leu Phe
 35 40 45

<210> 4827
 <211> 366
 <212> PRT
 <213> S.epidermidis

<400> 4827
 Leu Ile Thr Asn Lys Glu Arg Val Leu Met Thr Lys Lys Lys Arg Leu
 1 5 10 15
 Ser Pro Ser Glu Trp Leu Leu Lys Gln Ser Lys Arg His Lys Arg Lys
 20 25 30
 Asn Thr Leu Tyr Thr Ala Ile Val Leu Leu Val Ala Leu Val Leu Leu
 35 40 45
 Ile Phe Ala Val Lys Ser Ile Gln Val Glu Pro Val Lys Ser Asp Thr
 50 55 60
 Arg Asp Lys Asp Ser Ile Arg Ile Thr Tyr Leu Gly Asn Val Thr Leu
 65 70 75 80
 Asn Lys His Ile Arg Gln Thr Asn Leu Asn Asp Val Phe Lys Gly Ile
 85 90 95
 Gln Asp Thr Leu Asp His Ser Asp Phe Ser Thr Gly Ser Leu Ile Val
 100 105 110
 Asn Asp Phe Ser Arg Asn Gln Lys Asp Asn Ile Asn Lys Asn Ile Glu
 115 120 125

Asn Ile Met Phe Leu Arg Lys His Asn Val Lys Ser Val Asn Leu Ile
 130 135 140
 Asn Glu Ser Met Asp Asn Ile Gln Ala Thr Ala Met Met Arg Lys Ile
 145 150 155 160
 Asp Ser Gln Ala Gly Tyr Asn Phe Leu Thr Gly Asn Gly Ser' Asn Pro
 165 170 175
 Ile Asn Ser Lys Thr Val Gln Gln Asp Ile Lys Gly Lys Lys Ile Ala
 180 185 190
 Asn Val Ser Phe Thr Asp Ile Glu Ser Asn Tyr Thr Asn Ser Leu Lys
 195 200 205
 Asn Thr Thr Ser Ile Ser Leu Asp Pro Ala Ile Phe Tyr Pro Leu Ile
 210 215 220
 Lys Lys Leu Lys Glu Asn Asn Asp Tyr Val Val Asn Val Asp Trp
 225 230 235 240
 Gly Ile Pro Asn Glu Arg Asn Val Thr Thr Arg Gln Lys Glu Tyr Ala
 245 250 255
 His Ala Leu Ala Asn Ala Gly Ala Asp Val Ile Ile Gly His Asn Thr
 260 265 270
 Val Ile Gln Lys Val Glu Asn Tyr Lys Arg Thr Pro Ile Phe Tyr Ser
 275 280 285
 Leu Gly Asn Thr Thr Ser Asp Asn Phe Leu Ser Lys Asn Gln Lys Gly
 290 295 300
 Met Ile Val Gln Gln Asp Trp Lys Gly Ser His Asn Gln Phe His Ile
 305 310 315 320
 Thr Pro Ile Gln Ser Lys Asp Gly Lys Ile Ser Lys Asp Asn Met Asn
 325 330 335
 Lys Met Asp His Ile Arg Phe Lys Asn Asn Ile Lys Asp Lys Ser Ile
 340 345 350
 Asp Leu Lys Ser Asp Gln Asn Gly Gly Tyr Thr Phe Glu Tyr
 355 360 365

<210> 4828

<211> 139

<212> PRT

<213> S.epidermidis

<400> 4828

Glu Gly Thr Asn Lys Met Lys Lys Thr Ala Val Leu Asn Ser His Ile
 1 5 10 15
 Ser Ser Ala Ile Ser Thr Leu Gly His Tyr Asp Leu Leu Thr Ile Asn
 20 25 30
 Asp Ala Gly Met Pro Ile Pro Asn Asp Asp Lys Arg Ile Asp Leu Ala
 35 40 45
 Val Thr Lys Ser Leu Pro Cys Phe Ile Asp Val Leu Glu Thr Val Leu
 50 55 60
 Thr Glu Met Glu Ile Gln Lys Ile Tyr Leu Ala Glu Glu Ile Lys Thr
 65 70 75 80
 Ala Asn Ala Gln Gln Leu Lys Ala Ile Lys Lys Leu Ile Asn Asp Asp
 85 90 95
 Val Glu Ile Lys Phe Ile Ala His Ser Glu Met Lys Glu Met Leu Lys
 100 105 110
 Ser Pro Leu Asn Lys Gly Asn Ile Arg Thr Gly Glu Ile Thr Pro Phe
 115 120 125
 Ser Asn Ile Ile Leu Glu Ser Asn Val Thr Phe
 130 135

<210> 4829
 <211> 299
 <212> PRT
 <213> S.epidermidis

<400> 4829

Cys Ile Lys Asn Lys Arg Met Tyr Met Ile Lys Gln Asn Phe Thr Thr
 1 5 10 15
 Lys Val Tyr Pro Leu Lys Gln Phe Glu Gly Glu Tyr Ser Glu Val Ala
 20 25 30
 Tyr Ala Gly Asp Ser Gln Ala Asp Asp Val Ile Val Phe Ile His Gly
 35 40 45
 Ala Leu Leu Thr Tyr Lys Ile Met Thr Met Phe Glu Pro Tyr Phe Arg
 50 55 60
 Asp Tyr Lys Leu Ile Phe Ile Asn Cys Pro Ser Arg Gly Lys Ser Ser
 65 70 75 80
 Asp Leu Asp Arg Asp Thr His Thr Leu Asp Asp Tyr Ala Ala Arg Ile
 85 90 95
 Tyr Asp Val Leu Thr Gln Ile Val Lys Glu Gln Gln Ile Lys Glu Leu
 100 105 110
 Ser Ile Val Gly Tyr Ser Met Gly Gly Met Ile Ala Thr Arg Leu Leu
 115 120 125
 Lys Tyr Asn Thr Leu Pro Val Ser His Leu Ile Tyr Leu His Ser Ala
 130 135 140
 Ala Lys Ile Thr Pro Asp Ala Ser Met Leu Ala Arg Leu Phe Thr Ser
 145 150 155 160
 Glu Ser Lys Arg Ala Val Leu Lys Asp Glu Ile Lys Ala Val Lys Asn
 165 170 175
 Leu Pro Gln Tyr Ile Leu Asp Lys Thr Ile Tyr Ala Gln Lys Glu Asn
 180 185 190
 Ala Leu Asp Leu Val Gln Phe Ile Ala Pro Ile Lys Thr Ile Ile Thr
 195 200 205
 Asp Met Ile Tyr Thr Ile Asn Thr Asp Tyr Leu Pro Asp Ile Asp Glu
 210 215 220
 Ile Lys Gln Phe Pro Lys Ile Leu Phe Met Ser Gly Lys Glu Asp Gln
 225 230 235 240
 Ile Ile Pro Tyr Thr Asp Ser Gln Ala Thr Leu Glu Lys Phe Lys Ala
 245 250 255
 Leu Gly Gly Lys Thr Lys Glu Val Ile Tyr Pro Gly Ile Gly His Ile
 260 265 270
 Asp Phe Pro Ser Val Leu Glu Thr Gln Ser Asp Gly Gln Thr Gly Val
 275 280 285
 Val Asp Glu Ile Lys Ala Trp Ile Ser Lys Lys
 290 295

<210> 4830
 <211> 70
 <212> PRT
 <213> S.epidermidis

<400> 4830

Phe Ala Lys Lys Glu Tyr Lys Lys Ser Ser Asn Glu Val Gly Ser Thr
 1 5 10 15
 Ser Leu Glu Val Ser Gly Val Gly Val Asn Phe Val Ser Lys Phe Ile
 20 25 30
 Tyr Ser Asn Leu Ile Leu Ile Lys Val Leu Ser Ile Gly Arg Asn Ile

35 40 45
 Leu Tyr Leu Phe Ile Phe Ser Ser Ser Phe Leu Tyr Phe Thr Gly Lys
 50 55 60
 Val Phe Tyr Leu Asp Ser
 65 70

<210> 4831
 <211> 41
 <212> PRT
 <213> S.epidermidis

<400> 4831
 Ile Phe Glu Lys Lys Leu Val Glu Ile Lys Arg Leu Tyr Arg Cys Asn
 1 5 10 15
 Met Thr Arg Arg Trp Val Lys Arg Val Leu Phe Leu Ile Asp Leu Ile
 20 25 30
 Leu Leu Asp Val Tyr Thr Ile Ile Glu
 35 40

<210> 4832
 <211> 289
 <212> PRT
 <213> S.epidermidis

<400> 4832
 Glu Gly Glu Lys Met Asn Glu Gln Trp Met Ser Ala Leu Pro Leu Asp
 1 5 10 15
 Asn Val Lys Asp Ile Ser Pro Val Ser Gly Gly Asp Val Asn Glu Ala
 20 25 30
 Phe Lys Val Thr Thr Val Glu Glu Asp Ile Phe Phe Leu Leu Val Gln
 35 40 45
 Arg Gln Arg Ser Glu Ala Phe Tyr Ala Ala Glu Ile Ala Gly Leu Asn
 50 55 60
 Glu Phe Glu Asn Ala Gly Ile Thr Ala Pro Arg Val Ile Ala Ser Gly
 65 70 75 80
 Glu Ile Asn Gly Asp Ala Tyr Leu Leu Leu Ser Phe Leu Glu Glu Gly
 85 90 95
 Ser Gln Gly Ser Gln Arg Glu Leu Ala Arg Leu Val Ala Arg Met His
 100 105 110
 Ser Gln Tyr Gln Gln Asp Asn Lys Phe Gly Phe Arg Leu Pro His Glu
 115 120 125
 Gly Ala Asp Ile Ser Phe Asp Asn Ser Trp Thr Glu Thr Trp Lys Glu
 130 135 140
 Ile Phe Ile Asn Arg Arg Met Asp His Leu Gln Asp Glu Leu Leu Arg
 145 150 155 160
 Val Gly Leu Trp Lys Gln Glu Asp Lys Lys Met Tyr Glu Arg Val Arg
 165 170 175
 Lys Val Ile Val Asp Glu Leu Ser Asn His Thr Ser Lys Pro Ser Leu
 180 185 190
 Leu His Gly Asp Leu Trp Gly Gly Asn Tyr Met Phe Leu Thr Asn Gly
 195 200 205
 Gln Pro Ala Leu Phe Asp Pro Ala Pro Leu Tyr Gly Asp Arg Glu Phe
 210 215 220
 Asp Ile Gly Ile Thr Thr Val Phe Gly Gly Phe Thr Gln Glu Phe Tyr
 225 230 235 240
 Asp Glu Tyr Asn Gln Gln Leu Pro Leu Ala Lys Gly Ser Gln Lys Arg

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<210> 4833
<211> 602
<212> PRT
<213> S.epidermidis
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<400>	4833														
Met 1	Asn	Glu	Asn	Asn 5	Tyr	Arg	Arg	Leu	Asn 10	Lys	Thr	Tyr	Lys	Pro 15	His
Tyr	Leu	Pro	Gly 20	Leu	Asp	Gly	Leu	Arg 25	Ala	Ile	Ala	Val	Ile 30	Gly	Ile
Ile	Ile	Tyr 35	His	Leu	Asn	Thr 40	Lys	Trp	Leu	Ser	Gly 45	Gly	Phe	Leu	Gly
Val	Asp 50	Thr	Phe	Phe	Val	Ile 55	Ser	Gly	Tyr	Leu	Ile 60	Thr	Ser	Leu	Leu
Leu 65	Ser	Glu	Tyr	Tyr	Arg 70	Asn	Asn	Ser	Ile	Asn 75	Leu	Val	Asn	Phe	Trp 80
Leu	Arg	Arg	Phe	Lys 85	Arg	Leu	Ile	Pro	Ala 90	Met	Met	Phe	Val	Val 95	Thr
Val	Val	Leu	Ile 100	Tyr	Thr	Leu	Leu	Phe 105	Lys	Pro	Glu	Leu	Ile 110	Ile	Ser
Ile	Lys	His 115	Asp	Ala	Ile	Ala	Ala 120	Leu	Phe	Tyr	Val	Ser	Asn 125	Trp	Trp
Tyr	Ile 130	Ile	Gln	Asp	Val	Asp 135	Tyr	Phe	Asn	Gln	Phe 140	Ala	Val	Ala	Pro
Leu 145	Lys	His	Leu	Trp	Ser 150	Leu	Ala	Ile	Glu	Glu	Gln 155	Phe	Tyr	Leu	Phe 160
Phe	Pro	Phe	Ile	Leu 165	Leu	Gly	Leu	Leu	Lys 170	Phe	Phe	Lys	Lys	Arg 175	Thr
Thr	Met	Ile	Ile 180	Leu	Leu	Ile	Ile	Ser 185	Leu	Leu	Ser	Leu	Thr 190	Ala	Met
Ile	Thr	Ile 195	His	Met	Tyr	Thr	Gly 200	Asn	Asn	Ser	Arg	Val 205	Tyr	Phe	Gly
Thr	Asp 210	Thr	Arg	Leu	Gln	Thr 215	Leu	Leu	Leu	Gly	Cys 220	Leu	Leu	Ala	Phe
Ile 225	Trp	Pro	Pro	Phe	Ser 230	Phe	Arg	Lys	Asp	Ile	Ser	Lys	Gly	Ala	Lys 240
Ala	Ser	Ile	Ser	Ala 245	Ile	Gly	Ile	Val	Gly 250	Met	Ala	Val	Leu	Ile 255	Tyr
Leu	Phe	Val	Val 260	Val	Ser	Asp	Gln	Asp 265	Lys	Trp	Ile	Tyr	Ser	Gly 270	Gly
Phe	Tyr	Ala 275	Ile	Ser	Phe	Leu	Thr 280	Leu	Phe	Val	Ile	Ala	Ser	Val	Val
His	Pro 290	Ser	Ser	Val	Leu	Lys 295	Lys	Ile	Leu	Ser	Phe	Lys	Leu	Phe	Ile
Tyr 305	Ile	Gly	Lys	Arg	Ser 310	Tyr	Ser	Leu	Tyr	Leu	Trp	His	Tyr	Pro	Ile 320
Ile	Ile	Phe	Met	Asn 325	Ser	Tyr	Phe	Val	Gln	Gly	Gln	Ile	Pro	Trp	Phe 335

Val Tyr Ile Cys Glu Val Ile Leu Met Phe Val Met Ala Glu Val Ser
 340 345 350
 Tyr Lys Phe Ile Glu Thr Pro Ile Arg Lys Asn Gly Phe Lys Ala Phe
 355 360 365
 Thr Val Ile Pro Lys Asn Leu Thr Arg Phe Ser Arg Thr Ile Ile Val
 370 375 380
 Leu Ile Leu Leu Val Pro Ser Ala Phe Ile Val Phe Gly Ala Tyr Asp
 385 390 395 400
 Ser Leu Gly Lys Glu His Asp Lys Gln Gln Ala Ala Lys Gln Lys Ser
 405 410 415
 Phe Lys Thr Asn Gln Lys Ala Lys Pro Lys Lys Pro Asp Glu Asn Asn
 420 425 430
 Gln Asp Lys Ser Ser Gln Gln His Phe Asn Pro Lys Glu Ala Ser Pro
 435 440 445
 Leu Leu Leu Gly Asp Ser Val Met Val Asp Ile Gly Gln Val Phe Ser
 450 455 460
 Glu Lys Val Pro Asn Ala Asn Ile Asp Gly Lys Val Gly Arg Gln Leu
 465 470 475 480
 Ile Glu Gly Lys Asp Leu Ile Asn Gln Lys Tyr Gln Asp Tyr Thr Lys
 485 490 495
 Lys Gly Gln Ser Val Val Ile Glu Leu Gly Thr Asn Gly Glu Phe Thr
 500 505 510
 Lys Asp Gln Met Asn Glu Leu Ile Asp Ser Leu Gly Glu Ala Asp Ile
 515 520 525
 Tyr Leu Ile Lys Val Arg Val Pro Arg Asp Tyr Glu Ser Thr Asn Asn
 530 535 540
 Lys Ile Met Glu Gln Val Ala Lys Lys His Lys Asn Val His Ile Val
 545 550 555 560
 Asp Trp Tyr Lys Thr Ser Glu Gly His Ser Glu Tyr Phe Ala Tyr Asp
 565 570 575
 Gly Ile His Leu Glu Tyr Ser Gly Val Lys Ala Leu Ser Asn Glu Ile
 580 585 590
 Ile Lys Lys Met Lys Glu Val Asn Glu Lys
 595 600

<210> 4834

<211> 230

<212> PRT

<213> S.epidermidis

<400> 4834

Lys Arg Trp Lys Ile Met Leu Asn Gln Phe Val Trp Val Ile Tyr Pro
 1 5 10 15
 Tyr Leu Cys Leu Ala Ile Phe Val Ile Gly His Ile Ala Arg Tyr Lys
 20 25 30
 Tyr Asp Gln Phe Ser Trp Thr Ala Lys Ser Ser Glu Met Ile Glu Lys
 35 40 45
 Lys Arg Leu Lys Trp Gly Ser Leu Leu Phe His Leu Gly Ile Ile Pro
 50 55 60
 Val Phe Phe Gly His Val Val Gly Leu Leu Ile Pro Ala Asn Trp Leu
 65 70 75 80
 Glu Ala Ile Gly Val Asn Asn His Ile Tyr His Ile Gly Ala Val Tyr
 85 90 95
 Ile Gly Ser Val Phe Gly Ile Ile Thr Leu Ile Gly Met Leu Leu Leu
 100 105 110
 Thr Leu Arg Arg Leu Ser Ile Lys Asn Val Arg Arg Leu Ser Ser Phe

	115		120		125										
Ser	Asp	Ile	Phe	Val	Asn	Ile	Val	Leu	Leu	Ile	Ile	Leu	Ile	Met	Gly
	130					135					140				
Cys	Tyr	Ser	Thr	Leu	Val	Thr	Asn	Ala	Ile	Gln	Pro	Glu	Phe	Asp	Tyr
145					150					155					160
Arg	Gln	Thr	Ile	Ala	Ile	Trp	Phe	Arg	His	Leu	Phe	Met	Phe	Ser	Pro
				165					170					175	
Asn	Ala	Asp	Leu	Met	Leu	Asn	Val	Pro	Trp	Ser	Phe	Lys	Leu	His	Ile
			180					185					190		
Leu	Leu	Gly	Phe	Thr	Val	Phe	Ala	Cys	Trp	Pro	Phe	Thr	Arg	Leu	Val
	195						200					205			
His	Val	Trp	Ser	Val	Pro	Leu	Ser	Tyr	Met	Asn	Arg	Arg	Tyr	Ile	Val
	210					215					220				
Tyr	Arg	Lys	Asn	Lys	Ile										
225					230										

<210> 4835

<211> 77

<212> PRT

<213> S.epidermidis

<400> 4835

Val	Leu	Arg	Phe	Phe	Leu	Gly	Gly	Phe	Gly	Ala	His	Arg	Phe	Tyr	His
1				5					10					15	
Gly	Lys	Val	Gly	Ser	Gly	Val	Gly	Leu	Leu	Val	Leu	Thr	Leu	Leu	Thr
		20					25					30			
Val	Trp	Phe	Thr	Phe	Gly	Ile	Pro	Thr	Leu	Ile	Trp	Ala	Ile	Ile	Asp
	35					40					45				
Ala	Phe	Leu	Ile	Pro	Asn	Trp	Val	Lys	Glu	Asp	Glu	Glu	Arg	Ile	Arg
	50				55						60				
Gln	Gln	Ala	Leu	Ser	Glu	Val	Lys	Leu	Met	Lys	Asn	Lys			
65				70					75						

<210> 4836

<211> 71

<212> PRT

<213> S.epidermidis

<400> 4836

Leu	Glu	Tyr	Leu	Ile	His	Glu	Tyr	Val	Asp	Leu	Ile	Glu	Leu	Leu	Leu
1				5				10					15		
Ile	Val	Ile	Leu	Leu	Val	Ser	Leu	Thr	Ser	Phe	His	Pro	Leu	Tyr	Met
		20					25					30			
Leu	Lys	Leu	Asp	Val	Ile	Leu	Leu	Tyr	Phe	Asn	Ile	Glu	Lys	Ser	Leu
	35					40					45				
Gln	Arg	Ser	Lys	Arg	Arg	Arg	Asp	Thr	Lys	Leu	Tyr	Pro	Ile	Asn	Leu
	50				55						60				
Lys	Ile	Ser	Phe	Ser	Tyr	Lys									
65				70											

<210> 4837

<211> 50

<212> PRT

<213> S.epidermidis

<400> 4837

Leu Ile Phe Leu His His Thr Pro Lys Ile Asn Ile Tyr Tyr Ile His
 1 5 10 15
 Phe Ala Phe Tyr Ser Ile Gln Leu Cys Tyr Ser Val His Arg Leu Thr
 20 25 30
 Ser Ile Thr Arg Gly Ala Ile Gln Phe Ala Glu Arg Lys Phe Thr Phe
 35 40 45
 Asn Pro
 50

<210> 4838

<211> 65

<212> PRT

<213> S.epidermidis

<400> 4838

Leu Lys Phe Asp Ser Leu Gln Ser Gln Tyr Asp Leu Ser Phe Ile Tyr
 1 5 10 15
 Ile Thr His Tyr Leu Ile Ile Leu Tyr Ile Ser Glu Tyr Ile Lys Glu
 20 25 30
 Ile Ser Asn Val Gln Asp Asn Ser Thr Leu Thr Leu Lys Lys Leu Lys
 35 40 45
 Lys Ala Thr Glu Phe Glu Leu Arg Val Phe Pro His Phe Asn Asn Lys
 50 55 60
 Ser
 65

<210> 4839

<211> 42

<212> PRT

<213> S.epidermidis

<400> 4839

Met Ala Leu Asp Tyr Thr His Leu Ser Ala Ile Leu Phe Asn His Thr
 1 5 10 15
 Ile Leu Lys Arg Ala Pro Tyr Leu Tyr Asn Ser Thr Tyr Val Ala Asn
 20 25 30
 Phe Thr Val Tyr Phe Phe Gly Lys Ile Ile
 35 40

<210> 4840

<211> 451

<212> PRT

<213> S.epidermidis

<400> 4840

Leu Lys Ile Asp Gln Thr Leu Thr Ser Arg Ile Arg Gln Leu Glu Ala
 1 5 10 15
 Tyr Ile Met Lys Gln Phe Leu Asn Ile Thr Gln Arg Lys Phe Ile Glu
 20 25 30
 Trp Leu Ile Ile Leu Ser Ile Phe Ile Val Ser Ile Pro Asn Lys Trp
 35 40 45
 Thr Leu Met Ile Ser Ile Ala Leu Ser Leu Leu Leu Lys Arg Gly
 50 55 60
 Ala Leu Gly Val Val Gln Leu Ile Ile Leu Tyr Met Leu Arg Ser Gln
 65 70 75 80
 Ile Tyr Thr Pro Tyr Asp Thr Gln Glu Met Ala His Tyr Ile Val Ser

Val Ser Leu Ile Pro Phe Val Ile Ala Thr Tyr Phe Tyr Lys Lys Thr
 20 25 30
 Asn Gly Phe Phe Leu Leu Ala Pro Leu Phe Val Ser Met Val Ala Gly
 35 40 45
 Ile Ala Phe Leu Lys Leu Thr Gly Ile Ser Tyr Glu Asn Tyr Lys Ile
 50 55 60
 Gly Gly Asp Ile Ile Asn Phe Phe Leu Glu Pro Ala Thr Ile Cys Phe
 65 70 75 80
 Ala Ile Pro Leu Tyr Arg Lys Arg Glu Val Leu Lys Lys Tyr Trp Leu
 85 90 95
 Gln Ile Phe Gly Gly Ile Ala Val Gly Thr Ile Ile Ala Leu Leu Leu
 100 105 110
 Ile Tyr Leu Val Ala Ile Thr Phe Gln Phe Gly Asn Gln Ile Ile Ala
 115 120 125
 Ser Met Leu Pro Gln Ala Ala Thr Thr Ala Ile Ala Leu Pro Val Ser
 130 135 140
 Asp Gly Ile Gly Gly Val Lys Glu Leu Thr Ser Leu Ala Val Ile Leu
 145 150 155 160
 Asn Ala Val Val Ile Ser Ala Leu Gly Ala Lys Ile Val Lys Leu Phe
 165 170 175
 Lys Ile Ser Asn Pro Ile Ala Arg Gly Leu Ala Leu Gly Thr Ser Gly
 180 185 190
 His Thr Leu Gly Val Ala Ala Ala Lys Glu Leu Gly Glu Thr Glu Glu
 195 200 205
 Ser Met Gly Ser Ile Ala Val Val Ile Val Gly Val Ile Val Val Ala
 210 215 220
 Val Val Pro Ile Leu Ala Pro Ile Leu Leu
 225 230

<210> 4842

<211> 596

<212> PRT

<213> S.epidermidis

<400> 4842

Met Arg Ile Asp Val Met Leu Asn Leu Phe Ile Leu Leu Leu Glu Arg
 1 5 10 15
 Val Gly Leu Ile Ile Leu Leu Ala Tyr Ile Leu Met Asn Ile Asn His
 20 25 30
 Phe Lys Thr Met Met Ser Glu Arg Asp Lys Trp Arg Ser Lys Phe Gln
 35 40 45
 Leu Ile Ile Ile Phe Gly Ile Phe Ser Met Ile Ser Asn Phe Thr Gly
 50 55 60
 Ile Glu Ile Glu Asn Gly His Ile Val Ser Gly Asp Ile Tyr Tyr His
 65 70 75 80
 Leu Ser Lys Asp Ala Ser Met Ala Asn Thr Arg Val Leu Thr Ile Gly
 85 90 95
 Val Ser Gly Leu Ile Gly Gly Pro Trp Val Ala Ile Ile Val Gly Ile
 100 105 110
 Ile Ser Gly Leu Cys Arg Leu Tyr Ile Gly Gly Ala Asp Ala Tyr Thr
 115 120 125
 Tyr Leu Ile Ser Ser Ile Val Ile Ala Ile Ile Ser Gly Tyr Phe Gly
 130 135 140
 His Gln Thr Ile Lys Gln Asn Thr Tyr Pro Ser Ile Lys Lys Gly Ala
 145 150 155 160
 Ile Ile Gly Ala Ile Thr Glu Ile Ile Gln Met Gly Cys Ile Leu Leu

										165					170					175				
Phe	Thr	Asn	Asn	Leu	His	His	Ala	Ile	Thr	Leu	Val	Ser	Phe	Ile	Ala									
			180				185						190											
Leu	Pro	Met	Ile	Ile	Ile	Asn	Ser	Leu	Gly	Thr	Ala	Ile	Phe	Leu	Thr									
			195				200						205											
Ile	Ile	Leu	Ser	Thr	Ile	Lys	Gln	Glu	Glu	Gln	Met	Arg	Ala	Val	Gln									
			210				215						220											
Thr	His	Asp	Val	Leu	Gln	Leu	Ala	Asn	Glu	Thr	Leu	Pro	Tyr	Phe	Arg									
225				230						235			240											
Ser	Gly	Leu	Asn	Glu	Lys	Ser	Ala	Gln	Gln	Ala	Ala	Glu	Ile	Ile	Leu									
			245				250						255											
Lys	Leu	Met	Gln	Val	Ser	Ala	Val	Ala	Ile	Thr	Asn	Lys	Lys	Asp	Ile									
			260				265						270											
Leu	Thr	His	Ile	Gly	Ala	Gly	Ser	Asp	His	His	Val	Ala	Arg	Lys	Glu									
			275				280						285											
Ile	Ile	Thr	Asp	Leu	Ser	Lys	Glu	Val	Ile	Gln	Ser	Gly	Lys	Leu	Lys									
			290				295						300											
Val	Ala	His	Thr	Arg	Glu	Gly	Ile	Gly	Cys	His	His	Pro	Asn	Cys	Pro									
305				310						315			320											
Leu	Glu	Gly	Ala	Ile	Val	Val	Pro	Leu	Tyr	Ile	His	Asn	Glu	Val	Ala									
			325				330						335											
Gly	Thr	Leu	Lys	Phe	Tyr	Phe	Thr	Asp	Asn	Asn	Ile	Ile	Ser	Thr	Ser									
			340				345						350											
Asp	Gln	Gln	Leu	Ala	Lys	Gly	Leu	Ala	Asn	Ile	Phe	Ser	Ser	Gln	Leu									
			355				360						365											
Glu	Leu	Gly	Gln	Ala	Glu	Met	Gln	Gly	Gln	Leu	Leu	Lys	Asp	Ala	Glu									
			370				375						380											
Ile	Lys	Ser	Leu	Gln	Ala	Gln	Val	Asn	Pro	His	Phe	Phe	Phe	Asn	Ala									
385				390						395			400											
Ile	Asn	Thr	Ile	Ser	Ala	Leu	Val	Arg	Ile	Asp	Ser	Glu	Lys	Ala	Arg									
			405				410						415											
Arg	Leu	Leu	Ile	Gln	Leu	Ser	Gln	Phe	Phe	Arg	Ser	Asn	Leu	Asn	Gly									
			420				425						430											
Ala	Arg	Asn	Asn	Thr	Ile	Thr	Leu	Gln	Lys	Glu	Leu	Gln	Gln	Val	Ala									
			435				440						445											
Ala	Tyr	Leu	Ser	Leu	Glu	Gln	Ala	Arg	Tyr	Pro	Asn	Arg	Phe	Asn	Ile									
			450				455						460											
His	Tyr	Arg	Ile	Asp	Asp	Gln	Cys	Gln	Asp	Ala	Leu	Ile	Pro	Pro	Phe									
465				470						475			480											
Ile	Ile	Gln	Ile	Leu	Val	Glu	Asn	Ser	Ile	Lys	His	Ala	Phe	Lys	Asn									
			485				490						495											
Arg	Lys	Lys	Asn	Asn	His	Ile	Asp	Val	Asp	Val	Ser	Met	Lys	Gln	Asp									
			500				505						510											
Tyr	Leu	Ser	Ile	Ser	Val	Gln	Asp	Asn	Gly	Gln	Gly	Ile	Pro	Ala	Asp									
			515				520						525											
Gln	Leu	Asp	Thr	Ile	Gly	Tyr	Thr	Thr	Val	Thr	Ser	Thr	Thr	Gly	Thr									
			530				535						540											
Gly	Asn	Ala	Leu	Val	Asn	Leu	Asn	Lys	Arg	Leu	Thr	Gly	Leu	Phe	Gly									
545				550						555			560											
Thr	Thr	Ser	Ala	Leu	Asn	Ile	Gln	Ser	Ser	Gln	Ser	Gly	Thr	Thr	Val									
			565				570						575											
Ser	Cys	Leu	Ile	Pro																				

<210> 4843
 <211> 47
 <212> PRT
 <213> S.epidermidis

<400> 4843
 Asn Lys His Asp Cys Arg Asn Glu Ile Ile Val Phe Thr Phe Phe His
 1 5 10 15
 Arg Phe Pro Tyr Ser Phe Leu Asn Phe Ile Gln Tyr Asp Tyr Tyr Asp
 20 25 30
 Ser Leu Phe Gln Ile Pro Lys Glu Ile Phe Lys Leu Thr Lys Asn
 35 40 45

<210> 4844
 <211> 180
 <212> PRT
 <213> S.epidermidis

<400> 4844
 Trp Phe Asn Glu Lys Ile Leu Thr Val Ser Ile Tyr Ile Val Asn Ile
 1 5 10 15
 Cys Glu Ser Phe Tyr Thr Ile Ile Asn Arg Ala Arg Leu Lys Arg Gly
 20 25 30
 Gly Tyr Val Lys Gln Glu Gln Met Arg Leu Ala Asn Gln Leu Cys Phe
 35 40 45
 Ser Ala Tyr Asn Val Ser Arg Leu Phe Ala Gln Phe Tyr Glu Lys Lys
 50 55 60
 Leu Lys Gln Phe Gly Ile Thr Tyr Ser Gln Tyr Leu Val Leu Leu Thr
 65 70 75 80
 Leu Trp Glu Glu Asn Pro Gln Thr Leu Asn Ser Ile Gly Arg His Leu
 85 90 95
 Asp Leu Ser Ser Asn Thr Leu Thr Pro Leu Leu Lys Arg Leu Glu Gln
 100 105 110
 Ser Gly Trp Val Lys Arg Glu Arg Gln Gln Ser Asp Lys Arg Gln Leu
 115 120 125
 Ile Ile Thr Leu Thr Asp Asn Gly Gln Gln Gln Gln Glu Ala Val Phe
 130 135 140
 Glu Ala Ile Ser Ser Cys Leu Pro Gln Glu Phe Asp Thr Thr Glu Tyr
 145 150 155 160
 Asp Glu Met Lys Tyr Val Phe Glu Glu Leu Glu Gln Thr Leu Lys His
 165 170 175
 Leu Ile Glu Lys
 180

<210> 4845
 <211> 458
 <212> PRT
 <213> S.epidermidis

<400> 4845
 Lys Glu Asp Leu Ile Met Lys Tyr Ile Val Val Gly Thr Ser His Ser
 1 5 10 15
 Gly Tyr Glu Val Ile Gln Thr Leu Leu Lys Glu Asp Glu Asn Ala Asp
 20 25 30
 Ile Gln Val Phe Glu Ser Ala Asp Gln Pro Ser Phe Leu Ser Cys Gly
 35 40 45

Ile	Gln	Ser	Tyr	Leu	Glu	Asp	Ile	Ser	Ser	Ser	Leu	Asp	Asp	Leu	His
50						55					60				
Tyr	Ala	Ser	Val	Asp	Ser	Tyr	Lys	Ala	Gln	Gly	Val	Asn	Ile	His	Thr
65						70				75				80	
Asn	Ser	Thr	Val	Thr	Asp	Leu	Asp	Thr	Asp	Asn	Lys	Thr	Val	Val	Val
				85					90					95	
Glu	His	Gln	Gly	Gln	Thr	Ala	Thr	Tyr	Ser	Tyr	Asp	Lys	Leu	Phe	Leu
			100					105					110		
Ser	Pro	Gly	Gly	Lys	Pro	Val	Thr	Pro	Pro	Val	Asp	Gly	Ile	Glu	Lys
		115					120					125			
Tyr	Lys	His	Val	Leu	Phe	Met	Arg	Gly	Arg	Asp	Trp	Ala	Asn	Gln	Ile
	130					135					140				
Lys	Glu	Arg	Met	Lys	Asp	Ala	Lys	Lys	Ala	Val	Val	Val	Gly	Gly	Gly
145					150					155					160
Tyr	Ile	Gly	Ile	Glu	Ala	Ala	Glu	Ala	Phe	Ala	Lys	Ala	Gly	Ile	Asp
				165					170					175	
Thr	Thr	Ile	Val	Asp	Val	Ala	Asp	Arg	Ile	Leu	Asn	Thr	Tyr	Leu	Asp
			180					185					190		
Lys	Glu	Phe	Thr	Asp	Ile	Leu	Glu	Thr	Asn	Ala	Gln	Gln	His	Gly	Leu
		195					200					205			
His	Phe	Lys	Gly	Gly	Glu	Thr	Val	Lys	Ser	Ile	Ser	Gly	Asn	Gln	Asn
	210					215					220				
Gly	Glu	Val	Thr	Thr	Val	Val	Thr	Asp	Lys	Asn	Glu	Tyr	Asp	Ala	Asp
225					230					235					240
Thr	Val	Leu	Phe	Ala	Val	Gly	Val	Glu	Pro	Ala	Thr	Glu	Trp	Leu	Lys
				245					250					255	
Asp	Lys	Ile	Asp	Leu	Gly	Lys	Lys	Gly	Ile	Ile	Asn	Ile	Asn	His	Gln
		260						265					270		
Gln	Gln	Thr	Ser	Ala	Lys	Asp	Val	Tyr	Ala	Gly	Gly	Asp	Ala	Thr	Leu
		275					280					285			
Val	Pro	Phe	Ala	Pro	Val	Ser	Glu	Asp	Arg	Tyr	Ile	Ala	Leu	Ala	Thr
	290					295					300				
Asn	Ser	Arg	Arg	Gln	Gly	Val	Val	Ala	Ala	Lys	Asn	Met	Leu	Gly	Lys
305				310						315					320
Glu	Met	Thr	Met	Pro	Arg	Val	Ser	Gly	Thr	Ser	Gly	Leu	Gln	Leu	Phe
				325					330					335	
Asp	Tyr	Lys	Phe	Gly	Gln	Thr	Gly	Ile	His	Gly	Thr	Glu	Ile	Asp	Asn
			340				345						350		
Tyr	Asp	Gly	Asn	Leu	Gly	Gln	Thr	Tyr	Val	Glu	Glu	Leu	Ile	Arg	Pro
	355						360					365			
Gln	Phe	Met	Gln	Asp	Asp	Thr	Lys	Ile	His	Met	Lys	Ile	Ile	Tyr	Asp
	370					375					380				
Lys	Asp	Thr	His	Arg	Ile	Leu	Gly	Gly	Gln	Val	Met	Ser	Lys	Glu	Asp
385					390					395					400
Ile	Thr	Ala	Ser	Ile	Asn	Thr	Ile	Ser	Val	Val	Ile	Ser	Ala	Gly	Phe
				405					410					415	
Thr	Leu	Glu	Gln	Leu	Ala	Val	Gln	Asp	Phe	Phe	Phe	Gln	Pro	Asp	Tyr
			420					425					430		
Asp	Arg	Pro	Trp	His	Tyr	Leu	Asn	Val	Leu	Ala	Gln	Gln	Ala	Leu	Gly
	435						440					445			
Asp	Thr	Phe	Gly	Ser	Asp	Lys	Met	Leu	Phe						
	450					455									

<210> 4846

<211> 44

<212> PRT

<213> S.epidermidis

<400> 4846

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Leu Gly Asn Asp Val Pro Ile Thr Arg Ile Ile Ser Asn Asn Lys Tyr
1          5          10          15
Thr Thr Ile Ala Thr Ile Thr Ile Leu Ile Ile Leu Phe Phe Ala Ile
          20          25          30
Ile His Cys Cys Phe Ile Thr Ser Phe Ile Thr Asp
          35          40

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<210> 4847

<211> 91

<212> PRT

<213> S.epidermidis

<400> 4847

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Thr Lys Asn Glu Gln Val Glu Gln Phe Leu Ala Lys Glu Ser Gln Trp
1          5          10          15
Gln Asp Cys Tyr Lys Phe Leu Arg Asn Leu Ile Phe Asn Glu Thr Glu
          20          25          30
Leu Glu Glu Asn Tyr Lys Trp Met His Pro Cys Tyr Thr Ile Asn Asn
          35          40          45
Lys Asn Ala Val Leu Ile His Gly Phe Lys Gly Tyr Val Ala Leu Leu
          50          55          60
Phe Gln Lys Gly Ala Ile Leu Glu Glu Lys Tyr His Thr Leu Ile Gln
65          70          75          80
Gln Thr Glu Arg Leu Gln Ala Glu Ala Val Pro
          85          90

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<210> 4848

<211> 543

<212> PRT

<213> S.epidermidis

<400> 4848

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Cys Leu Asp Glu Ser Glu Leu Lys Gly Ser Thr Leu Met Asn Lys Ser
1          5          10          15
Asn Leu Leu Ala Pro Glu Asn Tyr Asn Ile Val Thr Glu Ile Glu Lys
          20          25          30
Tyr Ala Ser Glu Asp His Lys Lys Ala Ile Ile Tyr Lys Asp Asn Glu
          35          40          45
His Glu Asn Ile Ser Val Ser Tyr Lys Glu Leu Ile Ser Asn Ala Asn
          50          55          60
Lys Val Gly Asn Val Phe Leu Asn His Gly Leu Lys Lys Gly Asp Lys
65          70          75          80
Val Leu Ile Met Met Pro Arg Ala Ile Val Thr Tyr Glu Leu Tyr Ile
          85          90          95
Ala Ala Leu Lys Leu Gly Ile Ala Ile Val Pro Ser Ser Glu Met Leu
          100          105          110
Arg Thr Lys Asp Leu Gln Tyr Arg Ile Thr His Gly Glu Ile Asp Ala
          115          120          125
Val Ile Ser Phe Asp Ser Leu Thr Lys Glu Phe Glu Asn Val Lys Glu
          130          135          140
Tyr Asp Gln Leu Lys Lys Phe Ile Val Ala Gly His Lys Glu Asp Trp
145          150          155          160
Val Ser Ile Glu Asp Glu Lys Glu Lys Val Ser Asp Asp Leu Lys Gly

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Val	Leu	His	Leu	Asn	Ser	His	Lys	Val	Leu	Ser	Ser	Asn	Thr	Tyr	Ser
			20					25					30		
Asn	Tyr	Ile	Arg	Lys	Ser	Asn	Met	Leu	Leu	Phe	Asn	Gln	Thr	Lys	Gly
		35					40					45			

<210> 4850

<211> 101

<212> PRT

<213> S.epidermidis

<400> 4850

Ile	Pro	Ser	Glu	Val	Lys	Leu	Lys	Lys	Phe	Leu	Lys	Ile	Ile	Gln	Lys
1				5					10					15	
Thr	Ile	His	Tyr	Ile	Asn	His	His	Leu	Glu	Ser	Ala	Ile	Glu	Ile	Tyr
			20					25					30		
Ser	Thr	Tyr	Thr	Gln	Thr	Asp	Ile	Ser	Asn	Gln	Leu	Asn	Lys	Asp	Thr
		35				40						45			
Ile	Glu	Ala	Thr	Ala	Lys	Cys	Phe	Thr	Asn	Asp	Leu	Ser	Met	Ser	Ser
	50					55					60				
Asp	Tyr	Tyr	Asn	Asp	Leu	Gln	Leu	Trp	Leu	Lys	Glu	Val	Asn	Asp	Ile
65					70					75					80
Lys	Asp	Thr	Ile	Asn	Pro	Thr	Leu	Tyr	Phe	Thr	Asn	Gln	Leu	Leu	Phe
				85					90					95	
Ser	Arg	Tyr	Thr	Lys											
			100												

<210> 4851

<211> 270

<212> PRT

<213> S.epidermidis

<400> 4851

Lys	Glu	His	Glu	Thr	Met	Thr	Asn	Phe	His	Ser	Ile	Asp	Ala	Thr	Gln
1				5					10					15	
Val	Thr	Asn	Val	Thr	Leu	Asn	Val	Lys	Asp	Leu	Asn	Lys	Leu	Thr	Asp
			20					25					30		
Phe	Tyr	Ser	Asn	Val	Leu	Gly	Phe	Ser	Ile	Glu	Lys	Gln	Thr	Asn	Gln
		35				40						45			
Gln	Thr	Val	Phe	Asn	Ile	Gly	Asn	Leu	Gly	Tyr	Thr	Leu	Thr	Leu	Asn
	50					55					60				
Glu	Leu	Asn	Asn	Gly	Arg	Gln	Pro	Glu	Phe	Arg	Glu	Ala	Gly	Leu	Phe
65					70					75					80
His	Val	Ala	Tyr	Leu	Leu	Pro	Thr	Arg	Ser	Asp	Leu	Ala	Asp	Phe	Leu
			85						90					95	
Tyr	His	Ala	Asn	Asn	Leu	Asn	Ile	Ala	Met	Gly	Gly	Gly	Asp	His	Leu
			100					105					110		
Val	Ser	Glu	Ala	Leu	Tyr	Phe	Thr	Asp	Pro	Glu	Gly	Asn	Gly	Ile	Glu
		115					120					125			
Val	Tyr	His	Asp	Arg	Pro	Ser	Glu	Asp	Trp	Val	Trp	Arg	Asp	Gly	Phe
	130					135					140				
Val	Lys	Met	Asp	Thr	Leu	Glu	Val	Asn	Val	Asn	Asp	Leu	Met	Ala	Gln
145					150					155					160
Arg	Ser	Asn	Glu	Gly	Trp	Gln	Gly	Trp	Pro	Glu	Glu	Gly	Lys	Ile	Gly
				165					170					175	
His	Leu	His	Leu	Lys	Thr	His	Asn	Leu	Glu	Ser	Ala	Tyr	Glu	Phe	Tyr
			180					185					190		

Val Glu Lys Leu Gly Phe Glu His Ile Ser Asn Phe Pro Gln Ala Leu
 195 200 205
 Phe Met Ser Thr Gln Lys Tyr His His His Ile Ala Thr Asn Thr Trp
 210 215 220
 Gln Ser Asn Lys Ile Arg Thr Gln Asn Glu Gln Thr Tyr Gly Leu Cys
 225 230 235 240
 His Phe Asp Ile Tyr Gln Pro Asn Ala Asn Thr Thr His Val Thr Ser
 245 250 255
 Pro Glu Gly Phe Asp Ile Thr Ile His Gly Asn Glu Thr Lys
 260 265 270

<210> 4852

<211> 46

<212> PRT

<213> S.epidermidis

<400> 4852

Met Ser Asn Asp Thr Ser Leu Ile Val Ile Val Arg Ser Ser Ile Ser
 1 5 10 15
 Ala Ser Gln His Asp Phe Glu Lys Ser Tyr Phe Tyr Tyr Val Thr Ile
 20 25 30
 Phe Ala Lys Leu Asn Ile Arg Leu Phe Asn Glu Ala Tyr Thr
 35 40 45

<210> 4853

<211> 43

<212> PRT

<213> S.epidermidis

<400> 4853

Val Asp Cys Asp His Val Val Ser Phe Leu Phe Leu Lys Phe Lys Ile
 1 5 10 15
 Ile Leu Ile Ile Tyr Lys Val Asp Lys Ile Pro Asn Ile Lys Tyr Asn
 20 25 30
 Ile Phe Arg Glu Phe Tyr Ile Leu Lys Met Lys
 35 40

<210> 4854

<211> 605

<212> PRT

<213> S.epidermidis

<400> 4854

Ile Glu Leu Glu Ile Lys Lys Val Phe Asn Met Ser Leu Glu Leu Pro
 1 5 10 15
 Val Met Leu Thr Ile Val Leu Phe Leu Ala Leu Gly Ile Phe Ser Gln
 20 25 30
 Trp Leu Ala Ser Arg Ile Lys Trp Pro Ser Ile Val Val Met Ala Ile
 35 40 45
 Val Gly Leu Leu Val Gly Pro Ile Phe Gly Leu Ala Asn Pro Lys Glu
 50 55 60
 Ala Leu Gly Pro Glu Ala Phe Ser Ser Ile Val Ser Leu Ala Val Ala
 65 70 75 80
 Ile Ile Leu Phe Glu Gly Ser Ser Asn Leu Asp Phe Arg Glu Leu Lys
 85 90 95
 Gly Ile Ser Lys Ala Val Ile Arg Ile Ile Thr Ile Gly Ala Gly Ile

545 550 555 560
 Glu Lys Ile Thr Glu Asn Asp Met Leu Ile Tyr His Ile Asn Glu Asp
 565 570 575
 Lys Glu Val Thr Phe Lys Arg Ser Asn Arg Asp Ile Pro Glu His Glu
 580 585 590
 Thr Gly Val Tyr Gly Ile Leu Lys Asn Ala Tyr Leu Thr
 595 600 605

<210> 4855

<211> 324

<212> PRT

<213> S.epidermidis

<400> 4855

Lys Tyr Leu Asp Lys Trp Glu Glu Leu Thr Leu Lys Lys Tyr Leu Asn
 1 5 10 15
 Tyr Thr Leu Ile Leu Ile Ala Leu Ser Leu Ile Val Leu Ser Gly Cys
 20 25 30
 Ser Leu Pro Gly Leu Gly Asp Gly Asn Ala Lys Asp Asp Val Lys Ile
 35 40 45
 Thr Thr Thr Glu Thr Ser Glu Thr Lys Ile Ile Gly His Met Glu Lys
 50 55 60
 Leu Leu Ile Glu His Glu Thr Asp Gly Lys Ile Lys Pro Thr Leu Ile
 65 70 75 80
 Gly Asn Leu Gly Ser Ser Ile Ile Gln His Asn Ala Leu Gln Arg Gly
 85 90 95
 Asp Ala Asn Met Ser Ala Val Arg Tyr Thr Gly Thr Glu Leu Thr Ser
 100 105 110
 Val Leu Ala Ala Lys Pro Thr Lys Asp Pro Asp Lys Ala Met Ser Glu
 115 120 125
 Thr Gln Arg Leu Phe Lys Lys Lys Tyr Asp Glu Lys Tyr Tyr His Ser
 130 135 140
 Leu Gly Phe Ala Asn Thr Tyr Ala Phe Met Val Thr Lys Glu Thr Ala
 145 150 155 160
 Lys Lys Tyr His Leu Lys Lys Val Ser Asp Leu Glu Lys Tyr Lys Asp
 165 170 175
 Glu Leu Arg Leu Gly Met Asp Thr Gln Trp Met Asn Arg Ala Gly Asp
 180 185 190
 Gly Tyr Pro Ala Phe Val Lys Asp Tyr Gly Phe Lys Phe Asp Ser Ala
 195 200 205
 Arg Pro Met Gln Ile Gly Leu Val Tyr Asp Ala Leu Lys Asn Asn Lys
 210 215 220
 Leu Asp Val Ala Val Gly Tyr Ser Thr Asp Gly Arg Ile Ala Ala Tyr
 225 230 235 240
 Asp Leu Lys Ile Leu Glu Asp Asp Arg Lys Phe Phe Pro Pro Tyr Asp
 245 250 255
 Gly Ser Pro Leu Ala Asn Glu Gln Leu Ile Lys Asp Asn Pro Glu Ile
 260 265 270
 Asp Lys Ala Leu Lys Lys Leu Glu Gly Lys Ile Ser Thr Glu Glu Met
 275 280 285
 Gln Lys Leu Asn Tyr Glu Ala Asp Gly Lys Gly Lys Glu Pro Ala Val
 290 295 300
 Ile Ala Glu Glu Tyr Leu Lys Lys His His Tyr Phe Glu Glu Lys Lys
 305 310 315 320
 Gly Gly His Lys

<212> PRT

<213> S.epidermidis

<400> 4859

His	Met	Gln	Glu	Asp	Arg	Lys	Phe	Glu	Val	Lys	Trp	Arg	Leu	Val	Asn
1				5					10					15	
Ser	Ser	Thr	Phe	Met	Tyr	Gly	Thr	Lys	Leu	Arg	Phe	Asn	Gln	Asp	Asn
			20					25					30		
Ile	Tyr	Phe	Glu	Asn	Pro	Leu	Met	Pro	Ser	Gly	Thr	Ile	Ile	His	Ser
		35					40					45			
Trp	Tyr	Met	Leu	Thr	Asp	Phe	Ala	Glu	Asp	Arg	Val	Ser	Pro	Lys	Leu
	50					55					60				
Pro	Ile	Leu	Lys	Lys	Gly	Arg	Gln	Tyr	Gln	Phe	Gln	Phe	Asn	Phe	Glu
65					70					75					80
Val	Glu	Pro	Glu	Gly	Ala	Ala	Tyr	Phe	Lys	Met	Lys	Phe	Tyr	Arg	Lys
				85					90					95	
Asn	Lys	Glu	Ile	Leu	Ser	His	Gln	Ile	Leu	Lys	Asn	Lys	Lys	Glu	Asn
			100					105					110		
Ile	Val	Tyr	Pro	Arg	Glu	Ala	Tyr	Ser	Tyr	Glu	Leu	Glu	Leu	Ile	Asn
		115					120					125			
Ala	Gly	Met	Asn	His	Leu	Ser	Phe	His	Asn	Ile	Ile	Val	Gln	Glu	Leu
	130						135					140			
Arg	Glu	Asp	Ser	Asn	Gln	Ala	Tyr	Glu	Ala	Thr	Gln	Tyr	Ile	Asp	Pro
145					150					155					160
Lys	Lys	Lys	Leu	Lys	Val	Ile	Asn	Gln	Ile	Ile	Thr	Asn	Ile	Arg	Thr
				165					170					175	
His	His	Leu	Asp	Thr	Ser	Asn	Tyr	His	Arg	Ser	Asp	Thr	Asn	Gly	
			180					185					190		

<210> 4860

<211> 420

<212> PRT

<213> S.epidermidis

<400> 4860

Cys	Ser	Glu	Glu	Lys	Glu	Glu	Met	Ser	Met	Thr	Asn	Gly	Pro	Ile	Gln
1				5					10					15	
Val	Asn	Ser	Glu	Ile	Gly	Lys	Leu	Lys	Thr	Val	Leu	Leu	Lys	Arg	Pro
			20					25					30		
Gly	Lys	Glu	Leu	Glu	Asn	Leu	Val	Pro	Asp	Tyr	Leu	Asp	Gly	Leu	Leu
		35					40					45			
Phe	Asp	Asp	Ile	Pro	Phe	Leu	Lys	Val	Ala	Gln	Gln	Glu	His	Asp	His
	50					55					60				
Phe	Ala	Gln	Val	Leu	Gln	Asp	Glu	Gly	Ile	Glu	Val	Leu	Tyr	Leu	Glu
65					70					75					80
Lys	Leu	Ala	Ala	Gln	Ser	Ile	Glu	Asp	Ser	Asn	Val	Arg	Glu	Gln	Phe
				85					90					95	
Ile	Asp	Asp	Val	Leu	Ala	Glu	Ser	Arg	Lys	Thr	Ile	Leu	Gly	His	Glu
			100					105					110		
Lys	Glu	Ile	Lys	Lys	Leu	Phe	Ser	Thr	Leu	Ser	Asn	Gln	Ala	Leu	Ile
		115					120					125			
Asn	Lys	Ile	Met	Ala	Gly	Val	Arg	Lys	Glu	Glu	Ile	Gln	Leu	Glu	Ser
	130					135					140				
Thr	His	Leu	Val	Glu	Tyr	Met	Asp	Asp	Lys	Tyr	Pro	Phe	Tyr	Leu	Asp
145					150					155					160
Pro	Met	Pro	Asn	Leu	Tyr	Phe	Thr	Arg	Asp	Pro	Gln	Ala	Ser	Ile	Gly

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<210> 4861
<211> 465
<212> PRT
<213> S.epidermidis
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Asn	Gly	Glu	Glu	Lys	Ile	Met	Ala	Asp	Lys	Leu	Gln	Arg	Glu	Leu	Ser
1				5					10					15	
Asn	Arg	His	Ile	Gln	Leu	Ile	Ala	Ile	Gly	Gly	Ala	Ile	Gly	Thr	Gly
			20					25					30		
Leu	Phe	Leu	Gly	Ala	Gly	Gln	Ser	Ile	His	Leu	Ala	Gly	Pro	Ser	Ile
			35				40					45			
Leu	Leu	Thr	Tyr	Ile	Ile	Val	Gly	Phe	Val	Leu	Phe	Met	Phe	Met	Arg
			50			55					60				
Ala	Met	Gly	Glu	Leu	Leu	Leu	Ser	Asn	Leu	Gly	Phe	Lys	Ser	Phe	Gly
65				70						75				80	
Asp	Ile	Ala	His	His	His	Ile	Gly	Ser	Met	Ala	Gly	Phe	Met	Val	Gly
				85					90					95	
Trp	Thr	Tyr	Trp	Leu	Thr	Trp	Ile	Ile	Ser	Gly	Met	Ala	Glu	Val	Thr
			100					105					110		
Ala	Val	Ala	Lys	Tyr	Val	Ser	Phe	Trp	Tyr	Pro	Thr	Ile	Pro	Asn	Trp
			115				120					125			

1900

Leu Thr Ala Ala Ala Thr Ile Leu Val Leu Val Ala Leu Asn Leu Phe
 130 135 140
 Ser Ala Lys Leu Phe Gly Glu Leu Glu Phe Trp Leu Ser Ile Ile Lys
 145 150 155 160
 Val Leu Thr Ile Leu Ala Leu Ile Ala Val Gly Val Val Met Ile Val
 165 170 175
 Phe Gly Met Lys Thr Ser Tyr Gly Pro Ala Thr Val Thr Asn Ile Trp
 180 185 190
 Lys Asp Gly Gly Phe Phe Pro Asn Gly Ala Gln Gly Phe Phe Met Ser
 195 200 205
 Phe Gln Met Ala Ile Phe Ser Phe Ile Gly Ile Glu Leu Ile Gly Ile
 210 215 220
 Thr Ala Gly Glu Thr Lys Asp Pro His Lys Thr Ile Pro Gln Ala Ile
 225 230 235 240
 Asn Asn Val Pro Phe Arg Ile Leu Leu Phe Tyr Ile Gly Ser Leu Ala
 245 250 255
 Val Ile Met Ser Val Val Pro Trp Gln Gln Leu Asn Pro Ala Asp Ser
 260 265 270
 Pro Tyr Val Lys Met Phe Gly Leu Val Gly Ile Pro Phe Ala Ala Gly
 275 280 285
 Ile Ile Asn Phe Val Val Leu Thr Ala Ala Ala Ser Ser Cys Asn Ser
 290 295 300
 Gly Ile Phe Ala Asn Ser Arg Thr Met Phe Gly Leu Ala Gly Arg Lys
 305 310 315 320
 Gln Gly Pro Ala Phe Leu His Arg Thr Asn Lys His Gly Val Pro His
 325 330 335
 Tyr Ala Ile Leu Val Thr Cys Gly Leu Leu Ser Ile Ser Val Val Leu
 340 345 350
 Asn Ala Ile Phe Lys Asp Ala Thr Lys Val Phe Val Gln Ile Thr Thr
 355 360 365
 Phe Ser Thr Val Leu Asn Ile Met Ile Trp Thr Ile Ile Met Ile Ala
 370 375 380
 Tyr Leu Gly Tyr Leu Arg His Glu Pro Lys Gln His Lys Glu Ser Asn
 385 390 395 400
 Tyr Lys Met Trp Gly Gly Lys Tyr Met Ala Tyr Ser Ile Leu Gly Phe
 405 410 415
 Phe Ala Phe Ile Phe Ile Ile Leu Leu Ile Asn Ser Ala Thr Arg Tyr
 420 425 430
 Ala Val Leu Ser Ala Pro Val Trp Phe Val Ile Met Leu Leu Met Tyr
 435 440 445
 Gln Lys Tyr Lys Lys Glu Ser Arg Lys Ala Lys Ile Lys Asn Glu Glu
 450 455 460
 Glu
 465

<210> 4862

<211> 478

<212> PRT

<213> S.epidermidis

<400> 4862

Val Lys Glu Asp Gly Val Val Gly Ser Thr Val Lys Tyr Arg Lys Phe
 1 5 10 15
 Ile Leu Pro Ile Val Val Gly Leu Ile Ile Trp Ala Leu Thr Pro Ile
 20 25 30
 Lys Pro Asp Ala Leu Asn Asp Gln Ala Trp Phe Met Phe Ala Ile Phe

<210> 4863
 <211> 41
 <212> PRT
 <213> S.epidermidis

<400> 4863
 Leu Glu Arg Glu Leu Lys Leu Lys Ile Lys Arg Tyr Ser Leu His Tyr
 1 5 10 15
 Met Arg Val Trp Arg Arg Ile Arg Val Lys Phe Arg His Arg Arg Ala
 20 25 30
 Thr Gly Leu Ile Cys Ser Ile Phe Leu
 35 40

<210> 4864
 <211> 42
 <212> PRT
 <213> S.epidermidis

<400> 4864
 Lys Gly Arg Glu Val Lys Asn Ile Lys Ile Glu Val Lys Tyr Ser Glu
 1 5 10 15
 Asn Ser Gln Arg Pro Asn Lys Phe Asp Val Ser Cys Glu Ile Asn Gly
 20 25 30
 Glu Glu Arg Leu Tyr Ser Ile Glu Asn Ile
 35 40

<210> 4865
 <211> 262
 <212> PRT
 <213> S.epidermidis

<400> 4865
 Lys Leu Leu Glu Ala Val Asn Met Phe Lys Ile Gly Asn Leu Glu Leu
 1 5 10 15
 Gln Ser Arg Leu Leu Leu Gly Thr Gly Lys Phe Glu Asn Glu Glu Val
 20 25 30
 Gln Ser Lys Ala Ile Glu Ala Ser Glu Thr Asn Val Leu Thr Phe Ala
 35 40 45
 Val Arg Arg Met Asn Leu Tyr Asp Arg Asn Leu Pro Asn Pro Leu Ala
 50 55 60
 Asn Val Asn Leu Lys Asp Phe Ile Thr Phe Pro Asn Thr Ala Gly Ala
 65 70 75 80
 Lys Thr Ala Gln Glu Ala Ile Arg Ile Ala Glu Ile Ala Asn His Ala
 85 90 95
 Gly Val Cys Asp Met Ile Lys Val Glu Val Ile Gly Asp Asp Glu Thr
 100 105 110
 Leu Leu Pro Asp Pro Phe Glu Thr Tyr Glu Ala Cys Lys Val Leu Leu
 115 120 125
 Glu Lys Gly Tyr Thr Val Cys Pro Tyr Ile Ser Asn Asp Leu Val Leu
 130 135 140
 Ala Gln Arg Leu Glu Glu Leu Gly Val His Ala Val Met Pro Leu Ala
 145 150 155 160
 Ser Pro Ile Gly Thr Gly Arg Gly Ile Asn Asn Pro Leu Asn Leu Ser
 165 170 175
 Tyr Ile Ile Glu Asn Ala Ser Val Pro Val Ile Val Asp Ala Gly Ile
 180 185 190

1903

Gly	Ser	Pro	Lys	Asp	Ala	Cys	His	Ala	Met	Glu	Leu	Gly	Ala	Asp	Gly
		195					200					205			
Ile	Leu	Leu	Asn	Thr	Ala	Ile	Ser	Ala	Ala	Lys	Asp	Pro	Val	Lys	Met
	210					215					220				
Ala	Glu	Ala	Met	Lys	Leu	Gly	Ile	Asn	Ala	Gly	Arg	Leu	Ser	Tyr	Glu
225					230					235					240
Ala	Gly	Arg	Ile	Pro	Val	Lys	Tyr	Thr	Ala	Gln	Ala	Ser	Ser	Pro	Ser
				245					250					255	
Glu	Gly	Leu	Gly	Phe	Leu										
			260												

<210> 4866
 <211> 206
 <212> PRT
 <213> S.epidermidis

Arg	Cys	Met	Glu	Gln	Ile	Ile	Thr	Asp	Phe	Ile	Ser	Lys	Trp	Gly	Tyr
1				5					10					15	
Thr	Ala	Ile	Phe	Ile	Leu	Ile	Leu	Leu	Glu	Asn	Val	Leu	Pro	Val	Val
			20					25					30		
Pro	Ser	Glu	Ile	Ile	Leu	Thr	Phe	Ala	Gly	Leu	Leu	Ser	Val	Lys	Ser
		35					40					45			
His	Leu	Ser	Ile	Trp	Thr	Leu	Leu	Ile	Ile	Ala	Thr	Ile	Ala	Ser	Phe
	50					55				60					
Ile	Gly	Leu	Leu	Ile	Leu	Tyr	Tyr	Ile	Cys	Arg	Leu	Ile	Ser	Glu	Glu
65					70				75					80	
Lys	Leu	Tyr	Arg	Phe	Val	Asp	Arg	His	Gly	Lys	Trp	Met	Lys	Leu	Lys
				85					90				95		
Ser	Lys	Asp	Leu	Lys	Arg	Ala	Asn	Asp	Trp	Phe	Lys	Lys	Tyr	Gly	Ala
			100					105					110		
Trp	Ala	Val	Phe	Leu	Cys	Arg	Phe	Val	Pro	Val	Leu	Arg	Val	Leu	Ile
		115					120					125			
Thr	Ile	Pro	Ala	Gly	Ile	Asn	Arg	Met	Asn	Val	Ile	Gln	Phe	Thr	Thr
	130					135					140				
Leu	Ser	Leu	Ile	Gly	Thr	Thr	Ile	Trp	Asn	Phe	Ala	Leu	Ile	Leu	Leu
145					150					155				160	
Gly	Arg	Leu	Leu	Ser	Asp	Ser	Phe	Asp	Ala	Leu	Met	Asn	Gly	Ile	His
				165				170					175		
Thr	Tyr	Ser	Arg	Ile	Met	Tyr	Val	Ile	Ile	Ile	Ile	Ala	Val	Ile	Tyr
			180					185					190		
Phe	Val	Ile	Arg	Tyr	Leu	Met	Lys	Arg	Arg	Arg	Ser	Val	Lys		
		195					200					205			

<210> 4867
 <211> 263
 <212> PRT
 <213> S.epidermidis

Leu	Val	Met	Asp	Ile	Gln	Lys	Phe	Glu	Ser	Tyr	Leu	Lys	Ile	Lys	His
1				5					10					15	
Ser	Tyr	Tyr	Ser	Asn	Pro	Ser	Leu	Glu	Ala	Leu	Asn	Tyr	Tyr	Val	Arg
			20					25					30		
Arg	Phe	Met	Ile	Thr	Val	Pro	Phe	Glu	Asn	Ile	Asn	Val	Gln	Asn	Lys
		35					40					45			

Ile Pro Ile Ser Ile Asp Ile Lys Asp Leu Tyr Asn Lys Ile Val Ile
 50 55 60
 Gln Arg Arg Gly Gly Phe Cys Tyr Glu Leu Asn His Leu Phe Ala Thr
 65 70 75 80
 Tyr Leu Glu His Lys Gly Phe His Val Thr Arg Ala Ala Ala Thr Val
 85 90 95
 His Thr Pro Asn Gly Gly Arg Ser Pro Glu Gly Ser His Met Ser Leu
 100 105 110
 Tyr Val Asn Ile Glu Gly Thr Leu Tyr Ile Thr Asp Val Gly Phe Gly
 115 120 125
 Asp Leu Pro Thr Ser Ile Ile Glu Ile Gly Ser Lys Thr Gln Phe Ile
 130 135 140
 Pro Thr Tyr Asp Lys Asn Gly Val Tyr Cys Ala Val Trp Ile Asn Asp
 145 150 155 160
 Asn Gln Tyr Ala Leu Gln Lys Leu Arg Gln Asn Lys Trp Met Thr Leu
 165 170 175
 Tyr Glu Ala His Leu Lys Pro Gln Ser Ile Lys Asp Phe Lys Asp Lys
 180 185 190
 Ile Ser Tyr Asn Glu His His Pro His Ser Ile Phe Val Arg His Leu
 195 200 205
 Leu Ile Thr Gln Pro Gln Ser Phe Gly Arg Ala Thr Met Thr Tyr His
 210 215 220
 Ser Leu Thr Leu Ser Asn Asp Ser Thr Lys His Lys Tyr Asp Val Thr
 225 230 235 240
 Thr Asn Asn Tyr Lys Tyr Phe Leu Lys Lys Tyr Phe Asn Leu Asn Val
 245 250 255
 Ser Ile Ile Pro Phe Glu Pro
 260

<210> 4868

<211> 274

<212> PRT

<213> S.epidermidis

<400> 4868

Leu Trp Met Glu Arg Leu Glu Asn Lys Ile Ala Val Ile Thr Gly Ala
 1 5 10 15
 Ser Thr Gly Ile Gly Gln Ala Ser Ala Val Ala Leu Ala Ile Glu Gly
 20 25 30
 Ala His Val Leu Ala Leu Asp Ile Ser Asp Gln Leu Glu Glu Thr Val
 35 40 45
 Gln Ser Ile Asn Asp Asn Gly Gly Lys Ala Thr Ala Tyr Arg Val Asp
 50 55 60
 Ile Ser Asp Asp Lys Gln Val Lys Gln Phe Ser Glu Lys Ile Ala Gln
 65 70 75 80
 Glu Phe Gly His Val Asp Val Ile Phe Asn Asn Ala Gly Val Asp Asn
 85 90 95
 Gly Ala Gly Arg Ile His Glu Tyr Pro Val Glu Val Phe Asp Lys Ile
 100 105 110
 Met Ala Val Asp Met Arg Gly Thr Phe Leu Val Thr Lys Phe Leu Leu
 115 120 125
 Pro Leu Met Met Lys Gln Gly Gly Ser Ile Ile Asn Thr Ala Ser Phe
 130 135 140
 Ser Gly Gln Ala Ala Asp Leu Tyr Arg Ser Gly Tyr Asn Ala Ala Lys
 145 150 155 160
 Gly Gly Val Ile Asn Phe Thr Lys Ser Ile Ala Ile Glu Tyr Gly Arg

				165				170						175			
Glu	Asn	Ile	Arg	Ala	Asn	Ala	Ile	Ala	Pro	Gly	Thr	Ile	Glu	Thr	Pro		
			180					185					190				
Leu	Val	Asp	Asn	Leu	Ala	Gly	Thr	Ser	Asp	Glu	Glu	Ala	Gly	Gln	Thr		
		195					200					205					
Phe	Arg	Glu	Asn	Gln	Lys	Trp	Val	Thr	Pro	Leu	Gly	Arg	Leu	Gly	Thr		
	210				215						220						
Pro	Asp	Glu	Val	Gly	Lys	Leu	Val	Ala	Phe	Leu	Ala	Ser	Asp	Asp	Ser		
225					230					235					240		
Ser	Phe	Ile	Thr	Gly	Glu	Thr	Ile	Arg	Ile	Asp	Gly	Gly	Val	Met	Ala		
			245					250						255			
Tyr	Thr	Trp	Pro	Gly	Glu	Met	Leu	Ser	Asp	Glu	Ser	Trp	Lys	Asn	Ser		
			260					265					270				
Thr	Lys																

<210> 4869

<211> 63

<212> PRT

<213> S.epidermidis

<400> 4869

Asn	Ser	Thr	Asp	Lys	Ala	Ser	Trp	Gly	Ser	Gly	Pro	Gln	Gln	Arg	Glu		
1				5				10					15				
Phe	His	Arg	Glu	Ile	Pro	Arg	Thr	Arg	Gln	Val	Val	Gly	Asn	Leu	Asp		
		20					25					30					
Asn	Leu	Phe	Lys	Ile	Arg	Cys	Val	Phe	Asn	Tyr	Asp	Lys	Leu	Ser	Ser		
	35					40					45						
Leu	Phe	Cys	Phe	Val	Thr	Met	Asn	Cys	Asn	Val	Lys	Ala	Phe	Arg			
	50					55				60							

<210> 4870

<211> 149

<212> PRT

<213> S.epidermidis

<400> 4870

Ile	Tyr	Ser	Leu	Leu	Ile	Asn	Asn	Lys	Glu	Ile	Cys	Pro	Leu	Asp	Leu		
1				5				10					15				
Thr	Asn	Gln	Lys	Ile	Leu	His	Leu	Leu	Glu	Gln	Asn	Ser	Lys	Leu	Ser		
		20					25					30					
Leu	Ser	Glu	Ile	Gly	Lys	Glu	Val	Asn	Leu	Ser	Thr	Pro	Ser	Val	Arg		
	35					40					45						
Glu	Arg	Ile	Tyr	Lys	Leu	Ile	Asp	Ser	Lys	Ile	Ile	Glu	Arg	Tyr	Thr		
	50				55					60							
Ile	Asp	Ile	Asn	Tyr	Asp	Ala	Leu	Gly	Phe	Asp	Ile	Asn	Val	Leu	Ile		
65				70					75					80			
Glu	Val	Thr	Ile	Lys	Asn	Asn	Leu	Tyr	Lys	Asp	Phe	Lys	Ala	Phe	Ile		
			85					90					95				
Ser	Val	Gln	Asn	Val	Asp	Phe	Cys	Tyr	Arg	Ile	Ser	Gly	Asp	Ser			
		100					105					110					
Cys	Phe	Ile	Phe	Lys	Ala	His	Phe	Lys	Lys	Met	Ser	Glu	Val	Glu	Thr		
	115					120						125					
Leu	Ile	Asn	Glu	Ile	Gln	Tyr	Tyr	Gly	His	Thr	Lys	Thr	His	Phe	Ile		
	130				135						140						
Phe	Ser	Glu	Thr	Lys													

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145

<210> 4871

<211> 353

<212> PRT

<213> S.epidermidis

<400> 4871

Pro His Lys Glu Val Phe Thr Met Ser Glu Glu Arg Lys Leu Thr Phe
 1 5 10 15
 Met Gly Ala Ile Asn Glu Ala Ile Asp Gln Ser Met Glu Lys Asp Glu
 20 25 30
 Asp Val Ile Leu Ile Gly Thr Asp Val Ser Gly Gly Ala Lys Val Asp
 35 40 45
 His Ile Lys Asp Asp Asp Thr Phe Gly Gly Val Phe Gly Val Thr Lys
 50 55 60
 Gly Leu Ala Lys Lys Tyr Ser Arg Lys Arg Val Ile Asp Thr Pro Ile
 65 70 75 80
 Ala Glu His Ile Thr Leu Ser Thr Ala Val Gly Ala Ala Ala Thr Gly
 85 90 95
 Leu Arg Pro Ile Ala Glu Leu Met Phe Asn Asp Phe Ile Gly Phe Gly
 100 105 110
 Leu Asp Pro Ile Leu Asn Gln Gly Ala Lys Met Arg Tyr Met Phe Gly
 115 120 125
 Gly Lys Ala Lys Ile Pro Leu Val Val Arg Thr Val His Gly Ala Gly
 130 135 140
 Ala Ser Ala Ala Ala Gln His Ser Gln Ser Leu Tyr Asn Met Phe Ala
 145 150 155 160
 Ala Ile Pro Gly Val Lys Val Val Val Pro Ser Asn Pro Tyr Asp Ala
 165 170 175
 Lys Gly Leu Leu Met Ser Ala Ile Gln Glu Asn Asn Leu Val Val Phe
 180 185 190
 Ser Glu Asp Lys Thr Leu Leu Gly Gln Lys Gly Asn Val Pro Glu Glu
 195 200 205
 Pro Tyr Thr Ile Glu Ile Gly Lys Ala Asn Val Thr Arg Glu Gly Asp
 210 215 220
 Asp Leu Thr Ile Val Ala Ile Gly Lys Met Val Ala Val Ala Glu Glu
 225 230 235 240
 Thr Ala Glu Lys Leu Ala Glu Asp Gln Val Ser Val Glu Val Ile Asp
 245 250 255
 Leu Arg Ser Val Ser Pro Trp Asp Gln Glu Thr Val Leu Asp Ser Val
 260 265 270
 Lys Lys Thr Gly Arg Leu Ile Val Ile Asp Glu Ser Asn Pro Gln Cys
 275 280 285
 Asn Ile Ala Gly Asp Val Ala Ser Val Ile Gly Asp Val Gly Phe Asp
 290 295 300
 Tyr Leu Asp Gly Pro Ile Lys Lys Val Thr Ala Pro Asp Thr Pro Val
 305 310 315 320
 Pro Phe Ala Ala Asn Leu Glu Ala Ala Tyr Met Pro Asn Ala Asp Lys
 325 330 335
 Val Leu Asp Ile Ala Ser Glu Leu Ile Asp Asp Leu Lys Lys Ala Asn
 340 345 350
 Ala

<210> 4872

<211> 317
 <212> PRT
 <213> S.epidermidis

<400> 4872

Asn	Cys	Lys	Glu	Met	Glu	Tyr	Met	Lys	Ile	Ala	Ile	Ala	Gly	Ser	Gly
1				5					10					15	
Ala	Leu	Gly	Ser	Gly	Phe	Gly	Ala	Lys	Leu	Phe	Gln	His	Gly	Tyr	Asp
			20					25					30		
Val	Thr	Leu	Ile	Asp	Asn	Trp	Glu	Pro	Gln	Val	Thr	Thr	Ile	Gln	Gln
		35					40					45			
Asp	Gly	Leu	His	Ile	Asp	Ile	Asn	Gly	Glu	Ala	His	His	Phe	Arg	Leu
	50					55					60				
Pro	Met	Tyr	Arg	Leu	Thr	Glu	Ile	Pro	Lys	Ala	Thr	Ser	Tyr	Asp	Ile
	65				70					75				80	
Val	Phe	Leu	Phe	Pro	Lys	Ser	Met	Gln	Leu	Glu	Glu	Val	Leu	Ser	His
				85				90						95	
Ile	Gln	Pro	His	Leu	His	Asp	Asn	Thr	Ile	Val	Val	Cys	Thr	Met	Asn
			100					105					110		
Gly	Leu	Lys	His	Glu	Arg	Leu	Ile	Gln	Gln	Tyr	Val	Ser	Ile	Asp	Arg
		115					120					125			
Ile	Val	Arg	Gly	Val	Thr	Thr	Trp	Thr	Ala	Gly	Ile	Asp	Gln	Pro	Gly
	130					135					140				
His	Thr	His	Leu	Met	Gly	Gln	Gly	Pro	Val	Glu	Ile	Gly	Cys	Leu	Val
	145				150					155				160	
Pro	Glu	Gly	Lys	Glu	Ser	Val	Asp	Ile	Ile	Val	Asn	Leu	Leu	Gln	Asn
			165					170						175	
Ala	Glu	Leu	Lys	Gly	Val	Lys	Ser	Glu	His	Leu	His	Gln	Ser	Ile	Trp
		180						185					190		
Lys	Lys	Ile	Cys	Val	Asn	Gly	Thr	Ala	Asn	Ser	Leu	Cys	Thr	Ile	Leu
	195					200						205			
Glu	Cys	Asn	Leu	Ala	Ala	Leu	Asn	Asn	Ser	Asp	Asp	Ala	Lys	Asn	Leu
	210					215					220				
Ile	Tyr	Lys	Ile	Thr	Gln	Glu	Ile	Val	His	Val	Ala	Thr	Val	Asp	Asp
	225				230					235				240	
Val	His	Leu	Asn	Val	Asp	Glu	Ile	Phe	Asp	Tyr	Leu	Ile	Ala	Leu	Asn
			245					250						255	
Asp	Lys	Val	Gly	Pro	His	Tyr	Pro	Ser	Met	Tyr	Gln	Asp	Leu	Ile	Lys
		260					265					270			
Asp	Asn	Arg	Thr	Thr	Glu	Ile	Asp	Tyr	Ile	Asn	Gly	Ala	Val	Ser	Lys
		275				280					285				
Leu	Gly	Lys	Glu	Asn	His	Ile	Ala	Thr	Pro	Val	Asn	Asp	Phe	Val	Thr
	290					295					300				
Asn	Leu	Val	His	Ala	Lys	Glu	Asn	Gln	Arg	Gly	Ala	Gln			
305					310					315					

<210> 4873
 <211> 425
 <212> PRT
 <213> S.epidermidis

<400> 4873

Met	Lys	Ser	Leu	Asp	Lys	Gly	Phe	Arg	His	Leu	Thr	Arg	Lys	Asp	Lys
1				5					10					15	
Leu	Lys	Lys	Leu	Val	Glu	Tyr	Gly	Trp	Leu	Asp	Asp	Glu	Asn	Tyr	Glu
			20					25					30		

Ile Leu Leu Asn His Pro Leu Ile Asn Glu Glu Val Ala Asn Ser Leu
 35 40 45
 Ile Glu Asn Val Ile Gly Gln Gly Ala Leu Pro Val Gly Leu Leu Pro
 50 55 60
 Arg Ile Ile Val Asp Asp Lys Glu Tyr Val Val Pro Met Met Val Glu
 65 70 75 80
 Glu Pro Ser Val Val Ala Ala Ala Ser Tyr Gly Ala Lys Leu Val Asn
 85 90 95
 Gln Ser Gly Gly Phe Lys Thr Ile Ser Ser Glu Arg Leu Met Ile Gly
 100 105 110
 Gln Ile Val Phe Asp Asp Val Glu Asp Thr Gly Thr Leu Ala Asn Ser
 115 120 125
 Ile Tyr Gln Ile Glu Ser Gln Ile His Gln Ile Ala Asp Glu Ala Tyr
 130 135 140
 Pro Ser Ile Lys Ala Arg Gly Gly Gly Tyr Gln Arg Ile Glu Ile Asp
 145 150 155 160
 Thr Phe Pro Asn His Arg Leu Leu Ser Leu Lys Val Phe Val Asp Thr
 165 170 175
 Lys Asp Ala Met Gly Ala Asn Met Leu Asn Thr Ile Leu Glu Ala Ile
 180 185 190
 Thr Ala His Leu Lys Val Lys Phe Ser Asn Gln Asn Val Leu Met Ser
 195 200 205
 Ile Leu Ser Asn His Ala Thr Ala Ser Val Val Lys Val Gln Gly Glu
 210 215 220
 Ile Asp Ile Glu Asp Leu His Arg Gly Glu Arg Ser Gly Glu Glu Val
 225 230 235 240
 Ala Gln Arg Met Glu Arg Ala Ser Val Leu Ala Gln Val Asp Ile His
 245 250 255
 Arg Ala Ala Thr His Asn Lys Gly Val Met Asn Gly Ile His Ala Val
 260 265 270
 Val Leu Ala Thr Gly Asn Asp Thr Arg Gly Val Glu Ala Ser Ala His
 275 280 285
 Ala Tyr Ala Ser Lys Asp Gly His Tyr Arg Gly Ile Ala Thr Trp Glu
 290 295 300
 Tyr Asp Arg Ser Arg Asn Lys Leu Val Gly Thr Ile Glu Val Pro Met
 305 310 315 320
 Thr Leu Ala Thr Val Gly Gly Gly Thr Lys Val Leu Pro Ile Ala Lys
 325 330 335
 Ala Ser Leu Asn Leu Leu Asn Val Glu Asn Ala Gln Glu Leu Gly Gln
 340 345 350
 Val Val Ala Ala Val Gly Leu Ala Gln Asn Phe Ser Ala Cys Arg Ala
 355 360 365
 Leu Val Ser Glu Gly Ile Gln Gln Gly His Met Ser Leu Gln Tyr Lys
 370 375 380
 Ser Leu Ala Ile Val Val Gly Ala Lys Gly Glu Glu Ile Ala Gln Val
 385 390 395 400
 Ala Glu Ala Leu Lys Tyr Glu Ser Gln Ala Asn Thr Ala Lys Ala Gln
 405 410 415
 Glu Ile Leu Met Asn Ile Arg Lys Ser
 420 425

<210> 4874

<211> 45

<212> PRT

<213> S.epidermidis

<400> 4874

Thr	His	Leu	Leu	Val	Asn	Lys	Tyr	Lys	Phe	Lys	Val	Asn	Tyr	Ser	Val
1				5					10					15	
Lys	Ile	Glu	Cys	Tyr	Val	Asn	Phe	Leu	Gly	Glu	Thr	Asp	Val	Ser	Leu
			20					25					30		
Asn	Thr	Ile	Tyr	Thr	Leu	Leu	Asn	Ser	Glu	Lys	Ser	Ala			
		35					40					45			

<210> 4875

<211> 308

<212> PRT

<213> S.epidermidis

<400> 4875

Leu	Asn	Leu	Leu	Asn	Tyr	Ile	Lys	Thr	Arg	Gly	Ile	Cys	Met	Asp	
1				5				10					15		
Ile	Lys	His	Met	Lys	Tyr	Phe	Val	Glu	Val	Val	Lys	Gln	Gly	Gly	Met
			20					25				30			
Thr	Asn	Ala	Ser	Lys	Ser	Leu	Tyr	Ile	Ala	Gln	Pro	Thr	Ile	Ser	Lys
		35					40					45			
Ala	Ile	Lys	Asp	Ile	Glu	Ala	Glu	Met	Ala	Val	Pro	Leu	Phe	Asp	Arg
	50					55				60					
Ser	Lys	Arg	Ser	Leu	Val	Leu	Thr	Asp	Ala	Gly	Lys	Ile	Phe	Phe	Lys
65					70				75					80	
Lys	Cys	Gln	Glu	Ile	Ile	Ala	Leu	Tyr	Asp	Asn	Leu	Pro	Thr	Glu	Ile
			85					90						95	
Asn	Ser	Leu	Tyr	Gly	Leu	Glu	Thr	Gly	His	Ile	Thr	Ile	Ser	Met	Ser
			100					105					110		
Ala	Val	Met	Ser	Met	Arg	Lys	Phe	Ile	Gly	Val	Leu	Gly	Asp	Phe	His
		115					120					125			
Gln	Leu	Tyr	Pro	Asn	Ile	Thr	Tyr	Asn	Leu	Ile	Glu	Ser	Gly	Gly	Lys
	130					135					140				
Thr	Thr	Glu	Asn	Leu	Ile	Leu	Asn	Asp	Glu	Val	Asp	Ile	Gly	Val	Thr
145					150					155					160
Thr	Leu	Pro	Val	Asp	His	Gln	Lys	Phe	Glu	Cys	Ile	Ser	Leu	Asn	Lys
				165					170					175	
Glu	Glu	Leu	Thr	Val	Val	Leu	Asn	Lys	Glu	His	Pro	Leu	Ala	Gln	Lys
			180					185				190			
Ser	Ser	Ile	Lys	Met	Glu	Glu	Leu	Ala	Asp	Glu	Asn	Phe	Ile	Leu	Phe
		195					200				205				
Asn	Glu	Asp	Phe	Tyr	Leu	Asn	Asp	Lys	Ile	Ile	Glu	Asn	Ala	Lys	Asn
	210					215					220				
Ala	Gly	Phe	Val	Pro	Asn	Met	Ala	Ser	Gln	Ile	Ser	Gln	Trp	Asn	Val
225					230					235					240
Ile	Glu	Asn	Leu	Val	Ile	Asn	Gln	Leu	Gly	Ile	Ser	Ile	Leu	Pro	Ala
			245						250					255	
Thr	Ile	Ala	Gln	Leu	Leu	Asn	Asp	Asp	Val	Lys	Ile	Val	His	Leu	Glu
		260					265						270		
Asn	Ala	His	Thr	Thr	Trp	Glu	Leu	Gly	Val	Val	Trp	Lys	Lys	Asp	Lys
		275				280						285			
Arg	Leu	Ser	His	Ala	Thr	Asn	Lys	Trp	Ile	Glu	Phe	Leu	Lys	Glu	Arg
	290					295					300				
Leu	Ser	Glu	Glu												
305															

<210> 4876

<211> 479
 <212> PRT
 <213> S.epidermidis

<400> 4876

Gln	Arg	Leu	Leu	Gly	Tyr	Leu	Lys	Phe	Thr	Arg	Asn	Tyr	Phe	Ser	Val
1				5					10					15	
Leu	Tyr	Ile	Ile	Ile	Arg	Leu	Gly	Gly	Tyr	Asn	Met	Phe	Asn	Phe	Leu
		20					25					30			
Lys	Pro	Ala	Arg	His	Ile	Lys	Ser	Leu	Pro	Ala	Glu	Lys	Val	Asp	Asp
	35					40					45				
Thr	Tyr	Lys	Arg	Leu	Arg	Phe	Gln	Val	Phe	Leu	Gly	Ile	Phe	Ile	Gly
50					55						60				
Tyr	Ala	Gly	Tyr	Tyr	Leu	Arg	Lys	Asn	Phe	Ser	Leu	Ala	Met	Pro	
65					70				75					80	
Ser	Leu	Ile	Glu	Gln	Gly	Phe	Ile	Lys	Gly	Glu	Leu	Gly	Ile	Ala	Leu
			85						90					95	
Ser	Ala	Val	Ser	Ile	Ala	Tyr	Gly	Phe	Ser	Lys	Phe	Val	Met	Gly	Thr
		100						105					110		
Val	Ser	Asp	Arg	Ser	Asn	Ala	Arg	Met	Phe	Leu	Thr	Leu	Gly	Leu	Val
		115					120					125			
Leu	Thr	Ala	Ile	Ile	Asn	Leu	Leu	Leu	Gly	Phe	Ile	Pro	Phe	Phe	Thr
	130					135					140				
Ser	Ser	Ile	Thr	Ile	Met	Phe	Ile	Met	Leu	Phe	Leu	Val	Gly	Trp	Phe
145					150					155					160
Gln	Gly	Met	Gly	Trp	Pro	Pro	Ser	Gly	Arg	Val	Leu	Val	His	Gly	Phe
			165					170						175	
Ser	Val	Ser	Glu	Arg	Gly	Ser	Lys	Thr	Ser	Ile	Trp	Asn	Val	Ala	His
		180						185					190		
Asn	Val	Gly	Gly	Gly	Leu	Met	Ala	Pro	Ile	Ala	Thr	Trp	Gly	Ile	Ser
	195						200					205			
Met	Thr	Ala	Leu	Tyr	Asn	Phe	Gly	Tyr	Leu	Lys	Gly	Phe	Glu	Gly	Val
	210					215					220				
Phe	Ile	Tyr	Pro	Ala	Leu	Leu	Ala	Ile	Ile	Ile	Ala	Ile	Phe	Ser	Tyr
225					230					235					240
Ile	Leu	Ile	Arg	Asp	Thr	Pro	Gln	Ser	Gln	Gly	Leu	Pro	Pro	Ile	Glu
			245						250					255	
Gln	Tyr	Lys	Asn	Asp	Tyr	Ala	Thr	Ser	Thr	Lys	Gln	Thr	Ile	Glu	Thr
		260					265						270		
Glu	Leu	Thr	Thr	Lys	Glu	Ile	Leu	Phe	Lys	Tyr	Val	Leu	Asn	Asn	Lys
	275						280					285			
Trp	Val	Trp	Ala	Ile	Ala	Phe	Thr	Asn	Ile	Phe	Val	Tyr	Phe	Val	Arg
	290					295					300				
Tyr	Gly	Val	Leu	Asp	Trp	Ala	Pro	Thr	Tyr	Leu	Ser	Glu	Glu	Lys	His
305					310					315					320
Phe	Asp	Leu	Ser	Ala	Ser	Gly	Trp	Ala	Tyr	Phe	Leu	Tyr	Glu	Trp	Ala
			325						330					335	
Gly	Ile	Pro	Gly	Thr	Leu	Leu	Cys	Gly	Tyr	Leu	Ser	Asp	Lys	Leu	Phe
		340						345					350		
Lys	Gly	Arg	Gly	Gly	Pro	Ala	Gly	Phe	Phe	Phe	Met	Leu	Gly	Val	Thr
	355						360					365			
Ile	Phe	Ile	Leu	Ile	Tyr	Trp	Leu	Asn	Pro	Pro	Gly	His	Ala	Trp	Leu
	370					375					380				
Asp	Asn	Leu	Ser	Leu	Ile	Gly	Ile	Gly	Phe	Leu	Ile	Tyr	Gly	Pro	Val
385					390					395					400
Met	Leu	Ile	Gly	Leu	Gln	Ala	Leu	Asp	Tyr	Val	Pro	Lys	Lys	Ala	Ala

1911

				405					410					415			
Gly	Thr	Ala	Ala	Gly	Leu	Thr	Gly	Leu	Phe	Gly	Tyr	Leu	Phe	Gly	Ala		
			420					425					430				
Val	Met	Ala	Asn	Ile	Val	Leu	Gly	Phe	Val	Val	Gln	His	Phe	Gly	Trp		
		435					440					445					
His	Ile	Gly	Phe	Val	Leu	Leu	Thr	Val	Ile	Ser	Ile	Leu	Ala	Met	Leu		
	450					455					460						
Cys	Phe	Ile	Leu	Thr	Trp	Asn	Lys	Arg	Gly	Gln	Glu	Gln	Ile	Asp			
465					470					475							

<210> 4877
 <211> 62
 <212> PRT
 <213> S.epidermidis

Ser	Lys	Leu	Leu	His	Pro	Leu	Asn	Ile	Lys	Met	Met	Ile	Asp	Thr	Ile		
1				5					10						15		
Ile	Asn	Phe	Phe	Asn	Ile	Ser	Ala	Pro	Cys	Tyr	Asp	Gln	Phe	Ile	Arg		
			20					25					30				
Leu	Ser	Leu	Tyr	Leu	Leu	His	Tyr	Lys	Lys	Ala	Ile	Val	Ile	Asn	Ile		
		35					40					45					
Asn	Val	Asn	Cys	Lys	Leu	Ile	Met	Phe	Glu	Asn	Val	Lys	Ala				
	50					55					60						

<210> 4878
 <211> 44
 <212> PRT
 <213> S.epidermidis

Met	Cys	Ile	Leu	Asp	Val	Asn	Lys	Ile	Ile	Ala	Cys	Tyr	Trp	Leu	Cys		
1				5					10					15			
Arg	His	Glu	Gln	Ile	Arg	Val	Ser	Ile	Phe	Arg	Asp	Met	Lys	Leu	Ile		
			20					25					30				
Val	Leu	Phe	Val	His	Ala	Phe	Phe	Val	Ala	Arg	Lys						
		35					40										

<210> 4879
 <211> 317
 <212> PRT
 <213> S.epidermidis

Gln	Met	Val	Leu	Phe	Leu	Gln	Pro	Val	Phe	Gln	Glu	Arg	Leu	Trp	Gly		
1				5					10					15			
Gly	Thr	Asn	Leu	Thr	Gln	Phe	Gly	Tyr	Asp	Ile	Pro	Asn	Asn	Ser	Thr		
			20					25					30				
Gly	Glu	Cys	Trp	Ala	Ile	Ser	Ala	His	Lys	Asn	Gly	Pro	Asn	Thr	Ile		
		35					40					45					
Leu	Asn	Gly	Lys	His	Lys	Gly	Lys	Ser	Leu	Lys	Gln	Val	Trp	Asp	Glu		
	50					55					60						
Asp	Lys	Ala	Leu	Phe	Gly	Asn	Asp	Ser	Arg	Lys	Asp	Phe	Pro	Leu	Leu		
65					70				75					80			
Thr	Lys	Ile	Leu	Asp	Ala	His	Asp	Cys	Leu	Ser	Val	Gln	Val	His	Pro		
				85					90					95			

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Asp Asp Glu Tyr Ala Leu Lys His Glu Gly Glu Tyr Gly Lys Thr Glu
 100 105 110
 Cys Trp Tyr Ile Leu Asp Ala Gln Pro Gly Ala Glu Ile Ile Tyr Gly
 115 120 125
 Val Asn Ala Thr Ser Lys Asn Glu Leu Glu His Met Ile Asp His His
 130 135 140
 Gln Phe Asp Tyr Leu Phe Lys His Val Pro Val Lys Pro Gly Asp Phe
 145 150 155 160
 Phe Tyr Val Pro Ala Gly Thr Val His Ala Ile Gly Ser Gly Ile Leu
 165 170 175
 Ile Leu Glu Thr Gln Gln Ser Ser Asp Thr Thr Tyr Arg Ile Tyr Asp
 180 185 190
 Tyr Asp Arg Lys Asp Lys Asn Gly His Thr Arg Glu Leu His Leu Asn
 195 200 205
 Gln Ser Lys Asp Val Ile Asp Ile Thr Thr Thr Glu Pro Asn Thr Thr
 210 215 220
 Pro Lys Thr Glu Met Ile Asn Gly Asn Cys His Thr Gln Phe Val Ala
 225 230 235 240
 Asn His Phe Phe Thr Val Glu Glu Trp Ser Ile Lys Asp Ile Leu Asp
 245 250 255
 Phe Gln Lys Pro His Thr Tyr Cys Leu Val Ser Met Ile Asn Gly His
 260 265 270
 Gly Gln Val Ser Ile Asn Asn Lys Val Tyr Lys Ile Asp Lys Gly Asp
 275 280 285
 His Phe Ile Leu Thr Ser Glu Asp Gln Tyr Ile Lys Phe Val Gly Asn
 290 295 300
 Met Asp Leu Ile Val Ser Phe Ser Lys Asp Glu Ala Tyr
 305 310 315

<210> 4880

<211> 51

<212> PRT

<213> S.epidermidis

<400> 4880

Phe Asn Ser Leu Asn Lys Leu Leu His Arg Ser Phe Lys Phe Leu Asn
 1 5 10 15
 Tyr Thr Asn Tyr Ile Ser Glu Leu Lys Arg Leu Glu Ile Asn Tyr Phe
 20 25 30
 Ser Tyr Phe Leu Lys Ser Tyr Ile Ile Cys Ile Asn Arg Ser Lys Glu
 35 40 45
 Arg Lys Val
 50

<210> 4881

<211> 120

<212> PRT

<213> S.epidermidis

<400> 4881

Val Ala Ser Leu Leu Glu Cys Ile Val Thr Ala Pro Ala Gly Leu Ile
 1 5 10 15
 Tyr Val Ile Tyr Leu Trp Gln Gln Gln His Ile Thr Phe Gly Leu Asn
 20 25 30
 Ile Ser Ser Phe Trp Leu Leu Phe Ser Gly Ala Ile Thr Ala Ile Pro
 35 40 45


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Leu Met Leu Ser Gly Cys Ser Ser Phe Asp His Arg Lys Arg Glu Ser
      20      25      30
Ile Asn Asp Lys Asn Lys Met Lys Val Tyr Thr Thr Val Tyr Ala Phe
      35      40      45
Gln Ser Leu Thr Gln Gln Ile Gly Gly Lys Tyr Val Asp Ala Gln Ser
      50      55      60
Ile Tyr Pro Ala Gly Ala Asp Leu His Ser Tyr Glu Pro Thr Gln Lys
      65      70      75      80
Asp Met Ile Asp Ile Ala Lys Ser Asp Leu Phe Val Tyr Ser Ser His
      85      90      95
Gln Leu Asp Pro Val Ala Ala Lys Ile Thr Asn Ser Met Thr Asn Asn
      100      105      110
Ser Met Lys Leu Ala Leu Ala Glu Gly Leu Lys Gln Ser Asp Phe Ile
      115      120      125
His Ser Lys Asp His Asp Glu Asn His Glu His His Ser His His Glu
      130      135      140
Glu Ser Asn Gln Asp Pro His Val Trp Leu Asp Pro Val Leu Asn Gln
      145      150      155      160
Lys Phe Ala Phe Met Ile Lys Glu Lys Leu Ile Glu Lys Asp Pro Lys
      165      170      175
His Gln Ala Tyr Tyr Asn Lys Asn Tyr Lys Ile Val Asn Lys Asp Ile
      180      185      190
Val His Ile Asp Gln Gln Leu Gln Ser Ile Thr Lys His Ser Lys Arg
      195      200      205
Asp Lys Val Val Ile Ser His Asp Ser Leu Gly Tyr Leu Ala His Arg
      210      215      220
Tyr Gly Phe Lys Gln Gln Gly Val Lys Gly Met Asn Asp Glu Glu Pro
      225      230      235      240
Ser Gln Lys Glu Ile Leu Asn Ile Val Lys Asp Ile Gln His Ser His
      245      250      255
Ala Pro Tyr Val Leu Tyr Glu Gln Asn Ile Thr Ser Lys Ile Thr Asp
      260      265      270
Val Ile Lys Lys Glu Thr Asp Thr Lys Pro Leu Ser Phe His Asn Leu
      275      280      285
Ala Val Leu Thr Lys Glu Glu Gln Asn Asp Asp Ser Ile Ser Tyr Gln
      290      295      300
Ser Leu Met Lys Lys Asn Ile Tyr Val Leu Asn Arg Ala Leu Asn Asn
      305      310      315      320

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<210> 4886

<211> 45

<212> PRT

<213> S.epidermidis

<400> 4886

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Ile Gln Phe Cys Arg Arg Lys Val Gln Lys Leu Lys Asn Cys Leu Leu
1      5      10      15
Lys Met Ile Ser Lys Asn Leu Ile Ile Lys Met Asn Ile Asp Ile Asp
      20      25      30
Leu Asn Tyr Thr Phe Asn Ile Gly Ile Ile Phe Lys Ile
      35      40      45

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<210> 4887

<211> 254

<212> PRT

<213> S.epidermidis

Glu Glu Leu Glu Arg Lys Lys Ala Ile Asp Ile Gly Asn Ala Met Leu
 20 25 30
 Lys Asp Gly Tyr Lys Glu Ser Asp Val Ile Pro Ile Ala Thr Asn Gln
 35 40 45
 Ala Glu Lys Trp Tyr Gln His Ala Ser Lys Glu Glu Leu Glu Thr Leu
 50 55 60
 Lys Asn Lys His Ile Thr Gln His Gln Glu Asp Glu Ser Ala Asn Pro
 65 70 75 80
 Lys Leu Asn Glu Glu Asn Val His Val Tyr Tyr Glu Asp Gln Leu Trp
 85 90 95
 Lys Val Lys Ser Thr Glu Ala Lys Arg Ala Ser Asp Thr Phe Asp Thr
 100 105 110
 Lys Ser Glu Ala Val Asn Arg Ala His His Ile Ala Glu Asn Lys Gly
 115 120 125
 Thr Lys Val Val Glu His Arg Lys Asp Glu
 130 135

<210> 4890

<211> 54

<212> PRT

<213> S.epidermidis

<400> 4890

Met Leu Asn Cys Ser Ser Asp Val Thr Tyr Val Ser Gln Ser Ile Ile
 1 5 10 15
 Asn Asn Arg Asn His Ser Ile Thr Pro Leu Asp Asp Gly Ile Arg Pro
 20 25 30
 Ser Ser Phe Cys Ala Arg Glu Ile Phe Asn Ala Leu Ala Lys Asp Leu
 35 40 45
 Asn Ile Ala Ser Ile Ser
 50

<210> 4891

<211> 41

<212> PRT

<213> S.epidermidis

<400> 4891

Val Ile Asp Trp Tyr Leu Ser Ile Leu Arg Ser Val Asp Ala Lys Leu
 1 5 10 15
 Thr Lys Asp Leu Leu Leu Ser Val Leu Glu Val Val Gly Val Glu Asn
 20 25 30
 Cys Phe Ala Leu Val Val Val Leu Thr
 35 40

<210> 4892

<211> 80

<212> PRT

<213> S.epidermidis

<400> 4892

Met Asn Cys Cys His Arg Leu Leu Lys Gln Lys Gln Val Gln Gln Cys
 1 5 10 15
 Lys Val Lys Val Phe Ser Phe Asn Gln Thr Pro Tyr Ser Tyr Tyr Ser
 20 25 30
 Asn Arg Asn Lys Asn Ile Leu Ser Arg Tyr Tyr Ile Ile Val Asn Lys

		35					40					45					
Glu	Leu	Leu	Ala	Asn	Lys	Cys	Ser	Glu	Ser	Ser	Asn	Ser	Ile	Asn	Tyr		
	50					55					60						
Tyr	Phe	Lys	Leu	Phe	Thr	Asn	Arg	Asn	Asn	Tyr	Tyr	Leu	Gln	Ile	Thr		
65					70					75					80		

<210> 4893

<211> 249

<212> PRT

<213> S.epidermidis

<400> 4893

Met	Lys	Phe	Cys	Pro	His	Cys	Gly	Asn	Pro	Ile	Lys	Lys	Glu	Gln	Ser		
1				5					10					15			
Phe	Cys	Asn	Lys	Cys	Gly	Lys	His	Leu	Lys	Thr	Ser	Thr	Gln	Arg	Lys		
		20						25					30				
Ser	Glu	Asn	Gln	Ile	Glu	His	Met	Arg	Glu	Gln	Gln	Ser	Tyr	Ile	Ser		
		35					40					45					
Arg	Glu	Glu	Arg	Gln	His	His	Asp	Ser	Thr	Phe	Tyr	Lys	Glu	Gln	Lys		
	50					55					60						
His	Thr	Gly	Trp	Leu	Ile	Val	Leu	Ser	Ile	Ile	Phe	Val	Leu	Leu	Ile		
65				70					75						80		
Ala	Ala	Leu	Leu	Tyr	Gly	Ala	Tyr	Tyr	Ala	Tyr	Asn	His	Tyr	Ile	Ser		
			85					90						95			
Asp	Glu	Gln	Ser	His	Gln	Thr	Thr	Glu	Ser	Gln	Gln	Ser	Asn	Glu	Ser		
		100						105					110				
Asp	Gln	Asn	Arg	Asp	Gln	Ser	Thr	Gly	Pro	Ser	Ile	Asp	Val	Phe	Ser		
	115						120					125					
Asp	Asp	Phe	Asp	Gln	Gly	Tyr	Met	Lys	Ser	Ala	Ser	Thr	Ser	Gly	Tyr		
	130					135					140						
Arg	Gly	Val	Tyr	Asn	Gly	Met	Thr	Arg	Glu	Glu	Val	Glu	Asp	Lys	Phe		
145				150					155						160		
Gly	Thr	Ser	Asn	Gly	Ser	Val	Glu	Ser	Leu	Lys	Trp	Ser	Tyr	Glu	Thr		
			165					170						175			
Tyr	Gly	Asp	Leu	Ala	Val	Ala	Tyr	Asp	Asp	Asn	Glu	Val	Val	Ser	Val		
		180					185						190				
Gly	Val	Ala	Pro	Asn	His	Ile	Ser	Glu	Asp	Gln	Phe	Leu	Ser	Met	Tyr		
	195						200					205					
Asn	Glu	Pro	Asp	Asp	Arg	Asn	Ser	Ser	Gln	Leu	Ile	Tyr	Asp	Ser	Asn		
	210					215					220						
Lys	Asp	Asn	Asp	Phe	Ser	Val	Leu	Val	Asn	Val	Lys	Asn	Gly	Asp	Val		
225					230					235					240		
Thr	Val	Ile	Glu	Asn	Val	Asn	Gln	Ile									
				245													

<210> 4894

<211> 42

<212> PRT

<213> S.epidermidis

<400> 4894

Val	Cys	Ser	Cys	Phe	Ile	Leu	Val	Lys	Ile	Asn	Ser	Tyr	Val	Ile	Thr		
1				5					10					15			
Leu	Lys	Gly	Ala	Ser	Ser	Cys	Tyr	Asp	Cys	Arg	Thr	His	Asn	Asn	Ile		
		20						25					30				
Tyr	Ile	Lys	Cys	Phe	His	Arg	Arg	Tyr	Gly								

35

40

<210> 4895
 <211> 262
 <212> PRT
 <213> S.epidermidis

<400> 4895

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Met Lys Arg Leu Leu Leu Cys Ile Val Ala Leu Val Phe Val Leu Ala
1      5      10      15
Ala Cys Gly Asn Asn Ser Ser Asn Asn Lys Asp Asn Gln Ser Ser Ser
20      25      30
Lys Asp Lys Asp Thr Leu Arg Val Gly Thr Glu Gly Thr Tyr Ala Pro
35      40      45
Phe Thr Tyr His Asn Lys Lys Asp Gln Leu Thr Gly Tyr Asp Ile Asp
50      55      60
Val Ile Lys Ala Val Ala Lys Glu Glu Asn Leu Lys Leu Lys Phe Asn
65      70      75      80
Glu Thr Ser Trp Asp Ser Met Phe Ala Gly Leu Asp Ala Gly Arg Phe
85      90      95
Asp Val Ile Ala Asn Gln Val Gly Val Asn Lys Asp Arg Glu Lys Lys
100     105     110
Tyr Lys Phe Ser Glu Pro Tyr Thr Tyr Ser Ser Ala Val Leu Val Val
115     120     125
Arg Glu Asn Glu Lys Asp Ile Thr Ser Phe Asn Asp Val Lys Gly Lys
130     135     140
Lys Leu Ala Gln Thr Phe Thr Ser Asn Tyr Gly Gln Leu Ala Lys Asp
145     150     155     160
Lys Gly Ala Asp Ile Thr Lys Val Asp Gly Phe Asn Gln Ser Met Asp
165     170     175
Leu Leu Leu Ser Lys Arg Val Asp Gly Thr Phe Asn Asp Ser Leu Ser
180     185     190
Tyr Leu Asp Tyr Arg Lys Gln Lys Pro Asn Ala Lys Ile Lys Ala Ile
195     200     205
Lys Gly His Ala Glu Gln Asn Lys Ser Ala Phe Ala Phe Ser Lys Lys
210     215     220
Val Asp Glu Lys Thr Ile Glu Lys Phe Asn Lys Gly Leu Glu Lys Ile
225     230     235     240
Arg Asp Asn Gly Glu Leu Ala Lys Ile Gly Lys Lys Trp Phe Gly Gln
245     250     255
Asp Val Ser Lys Pro Glu
260

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<210> 4896
 <211> 54
 <212> PRT
 <213> S.epidermidis

<400> 4896

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Val Ile Leu Cys Asn Asp Ser Glu Val Tyr Phe Phe Asp Ile Gln Arg
1      5      10      15
Gln Lys Arg Tyr Phe Ile Ser Ile Gln Ile Ser Glu Ser Leu Phe Phe
20      25      30
Leu Ile Leu Ser Thr Ile Asn Lys Asn Phe Phe Pro Leu Thr Leu Phe
35      40      45
Ile Asp Arg Ala Asp Thr

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50

<210> 4897
 <211> 176
 <212> PRT
 <213> S.epidermidis

<400> 4897
 Thr Leu Arg Leu Lys Val Lys Gly Ser Met Lys Met Lys Ser Ser Val
 1 5 10 15
 Arg Leu Leu Asn His Ile Ile Lys Ile Met Asn Leu Gln Gln Ser Leu
 20 25 30
 Ile Ile Arg Asp Glu Gln Trp Asn Gln Ser Tyr Glu Ala Tyr Asn Phe
 35 40 45
 Asn Ile Asn Gly Tyr Val Phe Lys Ser Arg Leu Ala Lys Lys Thr Thr
 50 55 60
 Lys Lys Lys Gly Tyr Phe Leu Ser Leu Trp Glu Lys Asp Lys Thr Lys
 65 70 75 80
 Lys Asn Arg Ala Phe Asp Tyr Glu Ser Phe Pro Gly Lys Leu Ile Val
 85 90 95
 His Val Leu Asp Asp Ser Gln Val Gly Gln Phe Ile Phe Pro Lys His
 100 105 110
 Val Leu Phe His Lys Gly Ile Leu Arg Asn His Ala Ser Lys Gly Lys
 115 120 125
 Met Ala Phe Arg Val Tyr Pro Thr Trp Glu Lys Asp Leu Asn Arg Val
 130 135 140
 Ala His Lys Thr Gln Glu Trp Gln Lys Gln Tyr Phe Ile Asp Met Ser
 145 150 155 160
 Gln Thr Ile Asp Val Pro Ser Ile Lys Arg Ala Tyr Phe Asn Glu Asp
 165 170 175

<210> 4898
 <211> 44
 <212> PRT
 <213> S.epidermidis

<400> 4898
 His Tyr Leu Cys Leu Asn Ile Ser Phe Asn Leu Cys Leu Ser Arg Glu
 1 5 10 15
 Phe Phe Lys Leu Ile Ala Ser Leu Thr Tyr Ser Tyr Val Ile Ile Ile
 20 25 30
 Glu Arg Lys Asn Leu Phe Asp Tyr Cys Ile Asp Val
 35 40

<210> 4899
 <211> 396
 <212> PRT
 <213> S.epidermidis

<400> 4899
 Lys Gly Val Trp Lys Ser Met Glu Glu Ser Lys Asn Tyr Asn Leu Ile
 1 5 10 15
 Thr Thr Ile Met Phe Ile Ser Gly Ile Ile Val Met Ala Ser Leu Tyr
 20 25 30
 Thr Ala Leu Pro Leu Thr Ala Thr Phe Ala Glu Asp Phe His Val Pro
 35 40 45

Lys Ser Ile Ala Thr Leu Asn Gly Val Leu Phe Ser Leu Thr Tyr Ser
 50 55 60
 Ile Ser Cys Leu Phe Tyr Gly Thr Ile Ser Glu Lys Tyr Gly Arg Ile
 65 70 75 80
 Lys Thr Ile Leu Val Gly Met Ser Ala Leu Val Ile Ile Cys Leu Met
 85 90 95
 Ile Gly Ile Val His Ser Phe Thr Val Leu Leu Ile Leu Arg Ala Leu
 100 105 110
 Gln Gly Val Phe Ala Ala Ser Phe Ser Pro Val Val Met Thr Tyr Thr
 115 120 125
 Thr Glu Thr Tyr Pro Arg Val Lys Arg Val Thr Ala Ile Ser Phe Ile
 130 135 140
 Ser Thr Ser Phe Met Leu Ser Gly Val Leu Gly Gln Asn Met Ser Glu
 145 150 155 160
 Leu Val Val Ser Tyr Leu Asn Trp Gln Trp Val Tyr Phe Ile Leu Thr
 165 170 175
 Ile Leu Tyr Leu Ile Leu Val Leu Val Ile Tyr Lys Asn Val Pro Glu
 180 185 190
 Ser Pro His Lys Asn Pro Asp Ile Gln Leu Ile Lys Phe Phe Asn Asn
 195 200 205
 Phe Lys Asp Phe Lys Asp Asn Leu Lys Val Phe Tyr Cys Leu Phe Ile
 210 215 220
 Ser Leu Thr Leu Leu Ile Met Phe Ile Ser Met Tyr Asp Ile Leu Asn
 225 230 235 240
 Glu Tyr Val Thr Ser His Gln Val Gly Gly Asp Met Ser Val Ser Ser
 245 250 255
 Met Met Lys Leu Phe Gly Val Ile Gly Met Leu Leu Ser Leu Leu Ala
 260 265 270
 Gly Arg Val Ser Ser Arg Ile Gly Met Lys Arg Leu Leu Thr Ile Ala
 275 280 285
 Leu Thr Thr Cys Ile Val Ser Ile Ile Leu Met Gly Val Thr Thr Asn
 290 295 300
 Ile Ile Leu Ile Thr Thr Phe Ser Val Leu Phe Val Ala Gly Ile Ala
 305 310 315 320
 Phe Ala Ile Pro Thr Val Ile Ser Lys Ile Gly Val Val Val Lys Asn
 325 330 335
 Asn Gln Gly Phe Phe Leu Ser Val Asn Thr Phe Val Leu Phe Leu Gly
 340 345 350
 Thr Ala Ile Ala Pro Ile Leu Met Leu Phe Val Gly Glu Leu Ser Asn
 355 360 365
 Phe Phe Leu Gln Phe Leu Met Ile Ala Ile Val Gly Leu Ile Ala Leu
 370 375 380
 Val Val Ser Ile Phe Met Pro Gly Asp Gln Arg Ser
 385 390 395

<210> 4900

<211> 53

<212> PRT

<213> S.epidermidis

<400> 4900

Ile Ile Phe Leu Val Ser Ser Asp Tyr Leu Leu Val Thr His Leu Ile
 1 5 10 15
 Phe Cys Tyr Pro Ser Tyr Ile Tyr Ser Ser Gln Leu Ala Ile Asn Leu
 20 25 30
 Tyr Thr Tyr Ile Leu His Val Val Tyr His Phe Leu Lys Leu Leu Ile

35
Ile Ile Val Ser Asn
50

40

45

<210> 4901
<211> 213
<212> PRT
<213> S.epidermidis

<400> 4901
Leu Asn Gly Trp Arg Asn Phe Phe Met Asp Lys Leu Thr Val Gly Leu
1 5 10 15
Glu Trp Phe Leu Asn Pro Asp His Met Pro Leu Ile Leu Gly Ile Glu
20 25 30
Lys Gly Trp Phe Lys Glu Glu Ser Leu Glu Ile Glu Met Ile Glu Pro
35 40 45
Lys Glu His Phe Asp Ala Leu Asp Glu Ile Glu Asn Gly Ser Met Asp
50 55 60
Ile Ala Ile Thr Glu Pro Ile His Leu Val Gln Asp Arg Ala Lys Glu
65 70 75 80
Gln Lys Val Ile Gly Phe Ala Arg Tyr Leu His Thr Asn Gly Gly Ile
85 90 95
Met Tyr Asn Lys Asp Lys Asn Ile Ala Arg Pro Lys Asp Leu Ile Gly
100 105 110
Lys Arg Leu Gln Tyr Pro Gly Ala Pro Gly Pro Gly Gly Ile Ala Met
115 120 125
Ala Lys Thr Met Ile Glu Ala Asp Gly Gly Thr Phe Glu Glu Gly Asp
130 135 140
Ile Thr Pro Val Asn His Ser Phe Tyr His Thr Asp Ala Leu Leu Thr
145 150 155 160
Asp Lys Ala Asp Ala Ala Thr Leu Ile Phe Glu Asn Phe Glu Ile Leu
165 170 175
Glu Ala Arg Asn Gln Gly Leu Asn Val Asp Tyr Phe Pro Leu Lys Asn
180 185 190
Tyr Asn Val Pro Asp Phe Cys Gln Leu Ile Phe Ile Thr Thr Pro Glu
195 200 205
Val Leu Asn Thr Glu
210

<210> 4902
<211> 510
<212> PRT
<213> S.epidermidis

<400> 4902
Ser Arg Gly Cys Ser Met Lys Ile Lys Leu Phe Val Ile Val Val Ile
1 5 10 15
Phe Leu Met Thr Ile Leu Ser Ile Ile Ser Ile Thr Thr Arg Glu Ile
20 25 30
Ala His Ser Lys Asn Glu Thr Ile Leu Thr His Ala Ser Gln Lys His
35 40 45
Ile Asp Lys Met Val Glu Thr Ala Met Lys Lys Gly Asp Ile Pro Gly
50 55 60
Leu Ala Ile Leu Ile Ile Lys Asp Asn Lys Ile Phe Leu Asn Lys Gly
65 70 75 80
Tyr Gly Tyr Ala Asn Ile Glu Lys Lys Ala Lys Val Asn Pro His Thr

His Ile Asp Pro Ile Phe Ala Ile Ile Ile Met Gly Phe Ser Ala Met
 420 425 430
 Met Thr Glu Ala Phe Val Ala Ser Asn Tyr Ala Phe Ala Val Ile Phe
 435 440 445
 Ile Thr Thr Gln Val Ile Met Leu Asn Gly Leu Ala Ser Gln Asn Leu
 450 455 460
 Asn Ile Glu Ile Ala Tyr Thr Arg Ile Ile Asp Val Leu Ile Gly Ile
 465 470 475 480
 Ala Ile Ala Val Ile Gly Ile Phe Ile Leu Ala Arg Lys Thr Ala Ser
 485 490 495
 Ser Met Leu Ser Asp Ala Ile Ala Glu Leu Val Arg Lys Glu Gly Ile
 500 505 510
 Leu Phe His Tyr Leu Phe Ser Lys Asn Lys Gln Glu Thr Asn Glu Arg
 515 520 525
 Asp Arg Val Glu Ser Leu Asn Leu Asn Val Lys Ile Ser Asn Val Thr
 530 535 540
 Gln Ile Tyr Asn Ser Ala Asn Gly Glu Leu Phe Ser Asn Lys Glu Ala
 545 550 555 560
 Val Arg Tyr Tyr Tyr Pro Ser Ile Phe Ala Leu Glu Glu Ile Ser Phe
 565 570 575
 Met Leu Glu Arg Ala Met Asn Asn Lys His Arg Gln Thr Ile Asn Asp
 580 585 590
 Asp Leu Met Gly Glu Tyr Leu Val Val Phe Glu Asn Ile Ala Lys His
 595 600 605
 Phe Gln Phe Gln Ala Asp Leu Asn Ile Arg Asp Met Gln Pro Leu Pro
 610 615 620
 Gln Tyr Asn Tyr Ile Arg Ala Ser Leu Met Asn Ile Gln Arg Asn Cys
 625 630 635 640
 Ala Glu Gln Arg Gln Ala Ile Thr Lys Asp
 645 650

<210> 4904

<211> 203

<212> PRT

<213> S.epidermidis

<400> 4904

Met Lys Gln Trp Met Asn Arg Leu Ile Thr Leu Ile Gly Val Leu Leu
 1 5 10 15
 Ile Ile Leu Ala Ile Tyr Leu Phe Ser Lys Pro Tyr Ile Asp Asn Tyr
 20 25 30
 Leu His Glu Lys Asp Asn Asp His Lys Ile Glu Asn Tyr Asp Lys Lys
 35 40 45
 Glu Lys Glu Gln Thr Lys Thr Ser Lys Ser Thr Pro Lys Ile Pro Ser
 50 55 60
 Asp Lys Ser Lys Met Ala Gly Tyr Ile Glu Val Pro Asp Ala Gln Ile
 65 70 75 80
 Lys Glu Pro Val Tyr Pro Gly Pro Ala Thr Pro Glu Gln Leu Asn Arg
 85 90 95
 Gly Val Ser Phe Ala Glu Gly Asp Glu Ser Leu Asn Gln Gln Asn Ile
 100 105 110
 Ser Ile Ala Gly His Thr Phe Thr Asp Arg Ser His Tyr Gln Phe Thr
 115 120 125
 Asn Leu Lys Ser Ala Lys Ile Gly Ser Lys Val Tyr Phe Lys Thr Gly
 130 135 140
 Asn Gln Thr Arg Lys Tyr Lys Ile Thr Lys Ile Arg Asp Val Lys Pro


```

1           5           10           15
Leu Asp Glu Ser Phe Lys Gln Leu Ala Ser Tyr Ile Asn Ile Pro Val
20           25           30
Gly Val Leu Leu Pro Phe Lys Ser Gln Cys Phe Val Arg His Tyr Asn
35           40           45
Lys Gly Gln Ile Val Tyr Tyr Ser Ser Asp Glu Thr Thr His Ile Tyr
50           55           60
Leu Leu Leu Lys Gly Asn Ile Met Arg Glu Asn Phe Asn Leu Asn Gly
65           70           75           80
Asp Val Tyr Arg Tyr Leu Asn Arg Glu Lys Val Leu Phe Pro Leu Asn
85           90           95
Asn Leu Phe Gln Asp Lys Val Pro Asn Glu Met Cys Thr Ala Leu Thr
100          105          110
Asp Cys Glu Met Ile Gly Ile Pro Arg Asp Leu Ile Glu Tyr Leu Cys
115          120          125
Lys Asn His Glu Glu Ile Phe Val Lys Leu Phe Ser Leu Leu Ser Glu
130          135          140
Thr Gln Cys Gln His Ile Glu Tyr Asn Met Ala Leu Thr Ser Lys Leu
145          150          155          160
Ala Lys Glu Arg Val Thr Lys Ile Leu Arg Tyr Leu Cys Gln Thr Val
165          170          175
Gly Tyr Asp His Asp Glu Phe Tyr Glu Ile Lys His Phe Met Thr Ile
180          185          190
Gln Leu Leu Ser Asp Met Ala Gly Ile Ser Arg Glu Thr Thr Ser His
195          200          205
Ile Ile Asn Glu Leu Lys Glu Glu Lys Ile Leu Phe Lys Asn Ser Lys
210          215          220
Asn Trp Leu Val Ser Lys Asp Leu
225          230

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<210> 4909

<211> 191

<212> PRT

<213> S.epidermidis

<400> 4909

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Arg Ser Ser Arg Lys Ser Ile Gln Arg Ser Arg Phe Pro Gln Pro Val
1           5           10           15
Ala Glu Lys Ser Ala Ile Ala His Ala Lys Lys His Arg Glu Glu Tyr
20           25           30
Glu Lys Leu Gly Glu Gln Phe Phe Lys Asp Asn Phe Ser Leu Asn Val
35           40           45
Lys Ala Thr Asn Val Val Gly Ser Gly Asp Gly Val Glu Val Tyr Val
50           55           60
His Cys Asp Asp His Asp Ile Val Phe Asn Ala Ser Ile Pro Phe Asp
65           70           75           80
Lys Glu Ala Ile His Glu Glu Gly Ser Met Arg Ser Asn Asp Asn Gly
85           90           95
Asp Thr Met Ser Asn Met Val Gly Thr Val Leu Ser Gly Phe Glu Tyr
100          105          110
Lys Ala Gln Lys Glu Lys Tyr Asp Asn Leu Thr Lys Phe Phe Lys Asn
115          120          125
Asn Glu Glu Lys Tyr Gln Tyr Thr Gly Phe Thr Lys Glu Ala Ile His
130          135          140
Lys Thr Gln Asn Val Gly Tyr Gln Asn Glu Tyr Tyr Tyr Leu Ala Gly
145          150          155          160

```

Asn Val Thr Asn Ile Asn Asn Tyr Arg Lys Tyr Tyr Glu Pro Leu Ile
 165 170 175
 Lys Lys Asp Ser Lys Ser Phe Lys Glu Gly Met Lys Lys Ser Lys
 180 185 190

<210> 4910

<211> 325

<212> PRT

<213> S.epidermidis

<400> 4910

Asn Cys Thr Arg Gln Glu Tyr Arg Gly Ser Leu Gly Ser Leu Asn Gln
 1 5 10 15
 Leu Met Ile Thr Ile Gly Ile Leu Ala Tyr Leu Val Asn Tyr Ala
 20 25 30
 Phe Ala Asp Ile Glu Gly Trp Arg Trp Met Leu Gly Leu Ala Val Val
 35 40 45
 Pro Ser Val Ile Leu Leu Val Gly Ile Tyr Phe Met Pro Glu Ser Pro
 50 55 60
 Arg Trp Leu Leu Glu Asn Arg Asn Glu Glu Ala Ala Arg Gln Val Met
 65 70 75 80
 Lys Ile Thr Tyr Asp Asp Ser Glu Ile Asp Lys Glu Leu Lys Glu Met
 85 90 95
 Lys Glu Ile Asn Ala Ile Ser Glu Ser Thr Trp Thr Val Ile Lys Ser
 100 105 110
 Pro Trp Leu Gly Arg Ile Leu Ile Val Gly Cys Ile Phe Ala Ile Phe
 115 120 125
 Gln Gln Phe Ile Gly Ile Asn Ala Val Ile Phe Tyr Ser Ser Ser Ile
 130 135 140
 Phe Ala Lys Ala Gly Leu Gly Glu Ala Ala Ser Ile Leu Gly Ser Val
 145 150 155 160
 Gly Ile Gly Thr Ile Asn Val Leu Val Thr Ile Val Ala Ile Phe Val
 165 170 175
 Val Asp Lys Ile Asp Arg Lys Lys Leu Leu Val Gly Gly Asn Ile Gly
 180 185 190
 Met Ile Ala Ser Leu Leu Ile Met Ala Ile Leu Ile Trp Thr Ile Gly
 195 200 205
 Ile Ala Ser Ser Ala Trp Ile Ile Ile Val Cys Leu Ser Leu Phe Ile
 210 215 220
 Val Phe Phe Gly Ile Ser Trp Gly Pro Val Leu Trp Val Met Leu Pro
 225 230 235 240
 Glu Leu Phe Pro Met Arg Ala Arg Gly Ala Ala Thr Gly Ile Ser Ala
 245 250 255
 Leu Val Leu Asn Ile Gly Thr Leu Ile Val Ser Leu Phe Phe Pro Ile
 260 265 270
 Leu Ser Asp Ala Leu Ser Thr Glu Trp Val Phe Leu Ile Phe Ala Phe
 275 280 285
 Ile Gly Val Leu Ala Met Ile Phe Val Ile Lys Phe Leu Pro Glu Thr
 290 295 300
 Arg Gly Arg Ser Leu Glu Ile Glu Tyr Glu Leu Arg Glu Arg Thr
 305 310 315 320
 Gly Ala Arg Thr Glu
 325

<210> 4911

<211> 693

<212> PRT

<213> S.epidermidis

<400> 4911

Ile	Glu	Val	Leu	Ile	Val	Lys	Thr	Arg	Gln	Asn	Lys	Tyr	Ser	Ile	Arg
1				5					10					15	
Lys	Phe	Ser	Val	Gly	Ala	Ser	Ser	Ile	Leu	Ile	Ala	Ala	Leu	Leu	Phe
			20					25					30		
Met	Gly	Gly	Gly	Ser	Ala	Gln	Ala	Ala	Glu	Gln	Gln	Gln	Asp	Lys	Gly
		35				40					45				
Thr	Val	Glu	Asn	Ser	Thr	Thr	Gln	Ser	Ile	Gly	Asp	Glu	Asn	Glu	Lys
	50					55					60				
Leu	Ser	Glu	Gln	Gln	Ser	Thr	Gln	Asn	Lys	Asn	Val	Asn	Glu	Lys	Ser
65					70					75				80	
Asn	Val	Asp	Ser	Ile	Thr	Glu	Asn	Glu	Ser	Leu	His	Asn	Glu	Thr	Pro
				85					90					95	
Lys	Asn	Glu	Asp	Leu	Ile	Gln	Gln	Gln	Lys	Asp	Ser	Gln	Asn	Asp	Asn
			100					105					110		
Lys	Ser	Glu	Ser	Val	Val	Glu	Gln	Asn	Lys	Glu	Asn	Glu	Ala	Phe	Val
		115					120					125			
Lys	Lys	His	Ser	Glu	Glu	Lys	Pro	Gln	Gln	Glu	Gln	Val	Glu	Leu	Glu
	130					135					140				
Lys	His	Ala	Ser	Glu	Asn	Asn	Gln	Thr	Leu	His	Ser	Lys	Ala	Ala	Gln
145					150					155				160	
Ser	Asn	Glu	Asp	Val	Lys	Thr	Lys	Pro	Ser	Gln	Leu	Asp	Asn	Thr	Thr
			165					170						175	
Ala	Gln	Gln	Glu	Asp	Ser	Gln	Lys	Glu	Asn	Leu	Ser	Lys	Gln	Asp	Thr
			180					185					190		
Gln	Ser	Ser	Lys	Thr	Thr	Asp	Leu	Leu	Arg	Ala	Thr	Gly	Gln	Asn	Gln
		195					200					205			
Ser	Lys	Asp	Ser	Gln	Ser	Thr	Glu	Glu	Val	Asn	Lys	Glu	Val	Lys	Asn
	210					215					220				
Asp	Thr	Gln	Gln	Val	Thr	Ala	Lys	Asn	Asp	Asp	Asp	Lys	Val	Glu	Thr
225					230					235				240	
Phe	Asn	Leu	Asn	Ser	Lys	Glu	Glu	Pro	Leu	Lys	Val	Asp	Lys	Gln	Ala
			245						250					255	
Asn	Pro	Thr	Thr	Asp	Lys	Asp	Lys	Ser	Ser	Lys	Asn	Asp	Lys	Gly	Ser
			260					265					270		
His	Asp	Gly	Leu	Ala	Asn	Leu	Glu	Ser	Asn	Ala	Val	Ala	Thr	Thr	Asn
	275						280					285			
Lys	Gln	Ser	Lys	Gln	Gln	Val	Ser	Glu	Lys	Asn	Glu	Asp	Gln	Thr	Asn
	290					295					300				
Lys	Ser	Ala	Lys	Gln	Lys	Gln	Tyr	Lys	Asn	Asn	Asp	Pro	Ile	Ile	Leu
305					310					315				320	
Val	His	Gly	Phe	Asn	Gly	Phe	Thr	Asp	Asp	Ile	Asn	Pro	Ser	Val	Leu
			325						330					335	
Thr	His	Tyr	Trp	Gly	Gly	Asp	Lys	Met	Asn	Ile	Arg	Gln	Asp	Leu	Glu
			340					345					350		
Glu	Asn	Gly	Tyr	Glu	Ala	Tyr	Glu	Ala	Ser	Ile	Ser	Ala	Phe	Gly	Ser
		355					360					365			
Asn	Tyr	Asp	Arg	Ala	Val	Glu	Leu	Tyr	Tyr	Tyr	Ile	Lys	Gly	Gly	Arg
	370					375					380				
Val	Asp	Tyr	Gly	Ala	Ala	His	Ala	Ala	Lys	Tyr	Gly	His	Glu	Arg	Tyr
385					390					395				400	
Gly	Lys	Thr	Tyr	Glu	Gly	Val	Tyr	Lys	Asp	Trp	Lys	Pro	Gly	Gln	Lys
				405					410					415	

Ile His Leu Val Gly His Ser Met Gly Gly Gln Thr Ile Arg Gln Leu
 420 425 430
 Glu Glu Leu Leu Arg His Gly Asn Pro Glu Glu Val Glu Tyr Gln Lys
 435 440 445
 Gln His Gly Gly Glu Ile Ser Pro Leu Phe Gln Gly Gly His Asp Asn
 450 455 460
 Met Val Ser Ser Ile Thr Thr Leu Gly Thr Pro His Asn Gly Thr His
 465 470 475 480
 Ala Ser Asp Leu Leu Gly Asn Glu Ala Ile Val Arg Gln Leu Ala Tyr
 485 490 495
 Asp Val Gly Lys Met Tyr Gly Asn Lys Asp Ser Arg Val Asp Phe Gly
 500 505 510
 Leu Glu His Trp Gly Leu Lys Gln Lys Pro Asn Glu Ser Tyr Ile Gln
 515 520 525
 Tyr Val Lys Arg Val Gln Asn Ser Lys Leu Trp Lys Ser Lys Asp Ser
 530 535 540
 Gly Leu His Asp Leu Thr Arg Asp Gly Ala Thr Asp Leu Asn Arg Lys
 545 550 555 560
 Thr Ser Leu Asn Pro Asn Ile Val Tyr Lys Thr Tyr Thr Gly Glu Ser
 565 570 575
 Thr His Lys Thr Leu Ala Gly Lys Gln Lys Ala Asp Leu Asn Met Phe
 580 585 590
 Leu Pro Phe Thr Ile Thr Gly Asn Leu Ile Gly Lys Ala Lys Glu Lys
 595 600 605
 Glu Trp Arg Glu Asn Asp Gly Leu Val Ser Val Ile Ser Ser Gln His
 610 615 620
 Pro Phe Asn Gln Lys Tyr Val Glu Ala Thr Asp Lys Asn Gln Lys Gly
 625 630 635 640
 Val Trp Gln Val Thr Pro Thr Lys His Asp Trp Asp His Val Asp Phe
 645 650 655
 Val Gly Gln Asp Ser Thr Asp Thr Lys Arg Thr Arg Asp Glu Leu Gln
 660 665 670
 Gln Phe Trp His Gly Leu Ala Asp Asp Leu Val Gln Ser Glu Gln Leu
 675 680 685
 Thr Ser Thr Asn Lys
 690

<210> 4912

<211> 55

<212> PRT

<213> S.epidermidis

<400> 4912

Gly Arg Gln Arg Ser Ser Asn Ala Ser Ser Ala Ile Val Phe Ile Ile
 1 5 10 15
 Gly Gly Thr Tyr Ser Leu Leu His Gln Pro Asn Leu Ala Leu Phe Asn
 20 25 30
 Tyr Trp Ala Val Leu Ile Ile Ala Phe Asn Gln Trp Gly Gly Ser Met
 35 40 45
 Phe Ser Gly Thr Cys Phe Ile
 50 55

<210> 4913

<211> 40

<212> PRT

<213> S.epidermidis

<400> 4913

Met His Lys Arg Ile Val Ser Phe Leu Thr Thr Ser Tyr Phe Leu Leu
 1 5 10 15
 Cys His Thr Ile Tyr Leu Gln Val Cys His Asn Lys Lys Arg Ile Thr
 20 25 30
 Thr Phe Leu Arg Lys Gly Phe His
 35 40

<210> 4914

<211> 156

<212> PRT

<213> S.epidermidis

<400> 4914

Asn Gly Lys Arg Cys Arg Glu Lys Ile Ile Asn Gln Asn Arg Asp Ile
 1 5 10 15
 Val Ala Thr Glu Lys Ser Leu Pro Pro Trp Lys Arg Phe Leu Ser His
 20 25 30
 Phe Ser Phe Tyr Ala Ile Ala Leu Gln Tyr Phe Val Val Gln Phe Val
 35 40 45
 Ile Ala Leu Phe Leu Ile Trp Leu Pro Thr Tyr Leu Thr Glu Gln Tyr
 50 55 60
 His Val Asn Phe Lys Glu Met Thr Ile Ser Ala Leu Pro Trp Leu Phe
 65 70 75 80
 Met Phe Phe Leu Ile Leu Phe Gly Trp Ser Tyr Phe Arg Gln Asp Phe
 85 90 95
 Glu Tyr Arg Ser Ile Thr Phe Cys Cys Thr Trp Arg Asn Cys Asp Cys
 100 105 110
 Gly Ile Cys Gly Ile Leu Asn Phe Leu Ser Ser Thr Tyr Arg
 115 120 125
 Gln Leu Ile Cys Asn His Phe Leu Val Ile Thr Leu Phe Arg Trp Arg
 130 135 140
 Thr Tyr Phe Tyr Gly Asn Glu Leu Gly Cys Ser His
 145 150 155

<210> 4915

<211> 49

<212> PRT

<213> S.epidermidis

<400> 4915

Val Asn Lys Arg Asp Asp Ile Arg Ile Pro Phe Ser Ser Glu Asn Asp
 1 5 10 15
 Val Lys Asn Lys Leu Phe Asn Ile Val Tyr Ala Tyr Asn Ala Val Lys
 20 25 30
 Lys Asn Phe Lys Gln Ala Glu Asp Ser Arg Asn Pro Arg Gly Gln Asn
 35 40 45
 Leu

<210> 4916

<211> 208

<212> PRT

<213> S.epidermidis

<400> 4916

Gly	Lys	Trp	Arg	Phe	Phe	Ile	Val	Glu	Ile	Gly	Gly	Ile	Phe	Ile	Phe
1				5					10					15	
Ile	Ala	Ile	Thr	Tyr	His	Lys	Gln	Leu	Thr	Lys	Asp	Asp	Leu	Gln	His
			20					25					30		
Tyr	Lys	His	Ile	Glu	Glu	Ala	Ile	Asp	Gly	Leu	Leu	Phe	Arg	Thr	Ser
		35					40					45			
Met	Asn	Asn	Glu	Glu	Asn	Lys	Glu	Met	Ile	Gln	Ser	Leu	Leu	Gln	Leu
	50					55					60				
Gly	Phe	Ser	Lys	Asp	Lys	Ile	Ile	Ile	His	Ser	Asp	Val	Thr	Leu	Leu
65					70					75					80
Glu	Asp	Leu	His	Leu	Lys	Arg	Ile	His	Phe	Lys	Glu	Asn	Asp	Thr	Thr
			85						90					95	
Ala	Phe	Thr	Tyr	Lys	Glu	Ala	His	Pro	Asp	Ile	Cys	Val	Ser	Met	Ser
			100					105					110		
Thr	His	Asp	Val	Glu	Thr	Val	Lys	Arg	Cys	Tyr	Glu	Asn	Gly	Leu	Asp
		115					120					125			
Ser	Val	Phe	Phe	Gly	His	Ile	Phe	Pro	Thr	Ser	Ser	His	Pro	Asn	Val
	130					135					140				
Pro	Pro	Arg	Ser	Lys	Glu	Ala	Ile	Gln	Gln	Ala	Leu	Asn	Val	Pro	Ile
145					150					155					160
Pro	Ile	Tyr	Ala	Ile	Gly	Gly	Ile	Asn	Glu	His	Ser	Leu	Gln	Lys	Met
			165						170					175	
Pro	Pro	Gly	Phe	Lys	Gly	Ile	Cys	Ala	Ile	Ser	Tyr	Phe	Asn	Asn	Ala
			180					185					190		
Ser	Leu	Glu	Glu	Ile	Lys	Gln	Leu	Arg	Lys	Glu	Trp	Ser	Thr	His	Ala
	195						200					205			

<210> 4917

<211> 198

<212> PRT

<213> S.epidermidis

<400> 4917

Tyr	Ile	Phe	Arg	Lys	Leu	Asn	Lys	Gly	Glu	Ile	Leu	Glu	Leu	Lys	Asp
1				5					10					15	
Lys	Ile	Ile	Asp	Asn	Ala	Ile	Thr	Leu	Phe	Ser	Glu	Lys	Gly	Tyr	Asp
			20					25					30		
Gly	Thr	Thr	Leu	Asp	Asp	Ile	Ser	Lys	Ser	Val	Asn	Ile	Lys	Lys	Ala
		35					40					45			
Ser	Leu	Tyr	Tyr	His	Tyr	Asp	Asn	Lys	Glu	Glu	Ile	Tyr	Arg	Lys	Ser
	50					55					60				
Val	Glu	Asn	Cys	Phe	Asn	Tyr	Phe	Ile	Asp	Phe	Leu	Leu	Arg	Asn	His
65					70					75					80
Asp	Asp	Asn	Tyr	Ser	Ile	Asp	Gly	Leu	Tyr	Gln	Phe	Leu	Phe	Lys	Phe
			85						90					95	
Ile	Phe	Asp	Val	Asp	Glu	Arg	Tyr	Ile	Lys	Leu	Tyr	Val	Gln	Leu	Ser
			100					105					110		
Ser	Ala	Pro	Glu	Ala	Leu	Asn	Ser	Glu	Ile	Lys	His	His	Leu	Gln	Glu
		115					120					125			
Ile	Asn	Thr	Thr	Leu	His	Asp	Glu	Leu	Ile	Lys	Tyr	Tyr	Asp	Pro	Thr
	130					135						140			
His	Ile	Ala	Leu	Asp	Lys	Glu	Asp	Phe	Ile	Asn	Leu	Ile	Leu	Leu	Phe
145					150					155					160
Leu	Glu	Thr	Trp	Tyr	Phe	Arg	Ala	Ser	Phe	Ser	Gln	Lys	Phe	Gly	Ile
				165					170					175	

Ile Glu Asp Ser Lys Asn Arg Phe Lys Asp Gln Val Tyr Ser Leu Leu
 180 185 190
 Asn Val Phe Leu Lys Lys
 195

<210> 4918
 <211> 40
 <212> PRT
 <213> S.epidermidis

<400> 4918
 Thr Ile Phe Arg Gln Ser Glu Phe Ile Glu Asn Ser Ser Lys Pro His
 1 5 10 15
 Ile Lys Glu Cys Ala Gly Leu Phe Val Tyr Leu Glu Phe Leu Thr Trp
 20 25 30
 Lys Leu Lys Gln Ile Leu Lys Leu
 35 40

<210> 4919
 <211> 156
 <212> PRT
 <213> S.epidermidis

<400> 4919
 Arg Glu Phe Arg Ile Lys Cys Phe Thr Glu Glu Ile Asn Met Asn Trp
 1 5 10 15
 Leu Lys Ile Phe Tyr His Leu Leu Cys Ala Thr Thr Ile Ser Val Ile
 20 25 30
 Leu Leu Ile Ile Thr Ile Leu Met Asp Val Leu Leu Gln Asn Thr His
 35 40 45
 Leu Thr Gln Leu Leu Leu Asn Ile Asp Phe Leu Ile Asn Pro Asp Glu
 50 55 60
 Val Pro Thr Ile Ile Glu Val Leu Ile His Leu Ser Ile Gly Ile Leu
 65 70 75 80
 Ile Tyr Leu Ala Phe Leu Ile Ile Tyr His Tyr Ser Lys Ser Leu Tyr
 85 90 95
 His Leu Ala Tyr Leu Pro Leu Val Leu Ile Phe Thr Leu Met Tyr Pro
 100 105 110
 Leu Leu Val Phe Leu Ala Gln Arg Pro Phe Phe Ser Phe Ser Trp Asn
 115 120 125
 Glu Phe Ala Trp Trp Leu Val Ala His Leu Phe Phe Ile Ile Leu Met
 130 135 140
 Ala Thr Cys Leu Pro Ile Ile Ser Lys Lys Ile Leu
 145 150 155

<210> 4920
 <211> 124
 <212> PRT
 <213> S.epidermidis

<400> 4920
 Thr Ile Leu Arg Glu Arg Leu Ser Ile Ser Leu Cys Leu Ser Ala Arg
 1 5 10 15
 Leu Ser Asn Leu Ile Arg Ser Arg Pro Ser Ile Ile Lys Asn Glu Ile
 20 25 30
 Ile Ile Ser Val Asn Ile Thr Ile Lys Gly Thr Leu Ala Ser Asn Asp

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<210> 4921
<211> 518
<212> PRT
<213> S.epidermidis
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<400> 4921															
Gly 1	Val	Ile	Arg	Met 5	Val	Val	Pro	Phe	Lys 10	Asn	Glu	Pro	Gly	Ile 15	Asp
Phe	Ser	Val	Gln 20	Thr	Asn	Val	Glu	Arg 25	Phe	Asn	Glu	Glu	Leu 30	Arg	Lys
Val	Lys	Ala 35	Gln	Leu	Gly	Gln	Asp 40	Ile	Pro	Leu	Val	Ile 45	Asn	Gly	Glu
Lys	Leu 50	Thr	Lys	Thr	Asp 55	Thr	Phe	Asn	Ser	Val	Asn 60	Pro	Ala	Asn	Thr
Ser 65	Gln	Leu	Ile	Ala	Lys 70	Val	Ser	Lys	Ala	Thr 75	Gln	Asp	Asp	Ile	Glu 80
Lys	Ala	Phe	Glu	Ser 85	Ala	Asn	His	Ala	Tyr 90	Gln	Ser	Trp	Lys 95	Lys	Trp
Ser	His	Lys	Asp 100	Arg	Ala	Glu	Leu	Leu 105	Leu	Arg	Val	Ala	Ala 110	Ile	Ile
Arg	Arg	Arg 115	Lys	Glu	Glu	Ile	Ser 120	Ala	Ile	Met	Val	Tyr 125	Glu	Ala	Gly
Lys	Pro 130	Trp	Asp	Glu	Ala	Val 135	Gly	Asp	Ala	Ala	Glu 140	Gly	Ile	Asp	Phe
Ile 145	Glu	Tyr	Tyr	Ala	Arg 150	Ser	Met	Met	Glu	Leu 155	Ala	Asp	Gly	Lys	Pro 160
Val	Leu	Asp	Arg	Glu 165	Gly	Glu	His	Asn	Arg 170	Tyr	Phe	Tyr	Lys 175	Pro	Ile
Gly	Thr	Gly	Val 180	Thr	Ile	Pro	Pro	Trp 185	Asn	Phe	Pro	Phe	Ala 190	Ile	Met
Ala	Gly	Thr 195	Thr	Leu	Ala	Pro	Val 200	Val	Ala	Gly	Asn	Thr 205	Val	Leu	Leu
Lys	Pro 210	Ala	Glu	Asp	Thr	Val	Leu 215	Thr	Ala	Tyr	Lys 220	Leu	Met	Glu	Ile
Leu 225	Glu	Glu	Ala	Gly	Leu	Pro	Gln	Gly	Val	Val	Asn 235	Phe	Val	Pro	Gly 240
Asp	Pro	Lys	Glu	Ile 245	Gly	Asp	Tyr	Leu	Val	Asp 250	His	Lys	Asp	Thr 255	His
Phe	Val	Thr	Phe 260	Thr	Gly	Ser	Arg	Ala 265	Thr	Gly	Thr	Arg	Ile 270	Tyr	Glu
Arg	Ser	Ala 275	Val	Val	Gln	Glu	Gly	Gln	Gln	Phe	Leu	Lys 285	Arg	Val	Ile
Ala	Glu	Met 290	Gly	Gly	Lys	Asp 295	Ala	Ile	Val	Val	Asp 300	Asn	Asn	Val	Asp

				165					170					175			
Glu	Leu	Trp	Asp	Ser	Ser	Phe	Ser	Leu	Thr	Asn	Glu	Trp	Ile	Asn	Glu		
			180					185					190				
Tyr	Lys	Gln	Ser	Phe	Glu	Tyr	Gln	Thr	Leu	Gln	Lys	Val	Phe	Asp	Asn		
		195					200					205					
Thr	Val	Val	Gln	Asn	Ser	Glu	Ile	Lys	Lys	Phe	Asn	Glu	Ser	Lys	Leu		
	210					215					220						
Ile	Lys	Pro	Asn	Leu	Met	Gln	Glu	His	Ala	Leu	Lys	Ser	Leu	Glu	Ser		
225				230						235					240		
Leu	Arg	Asn	Val	Gly	Gly	Glu	Lys	Gly	Leu	Ile	Ile	Ser	Ala	Thr	Gly		
			245						250					255			
Thr	Gly	Lys	Thr	Ile	Leu	Cys	Ala	Leu	Asp	Val	Arg	Ala	Tyr	Ser	Pro		
		260						265					270				
Asp	Lys	Phe	Leu	Phe	Ile	Val	His	Asn	Glu	Gly	Ile	Leu	Asn	Arg	Ala		
		275					280					285					
Ile	Glu	Glu	Phe	Lys	Lys	Val	Phe	Pro	Tyr	Glu	Asp	Glu	Ser	Asp	Phe		
	290					295					300						
Gly	Leu	Leu	Thr	Gly	Lys	Arg	Lys	Asp	His	Asp	Ala	Lys	Phe	Leu	Phe		
305				310						315					320		
Ala	Thr	Ile	Gln	Thr	Leu	Ser	Lys	Lys	Glu	Asn	Tyr	Lys	Phe	Phe	Asn		
			325						330					335			
Ser	Asn	His	Phe	Asp	Tyr	Ile	Val	Phe	Asp	Glu	Ala	His	Arg	Thr	Ala		
		340						345					350				
Ala	Ser	Ser	Tyr	Gln	Lys	Ile	Phe	Asn	Tyr	Phe	Lys	Pro	Asn	Phe	Leu		
	355						360					365					
Leu	Gly	Met	Thr	Ala	Thr	Pro	Glu	Arg	Thr	Asp	Glu	Leu	Asn	Ile	Phe		
	370					375					380						
Glu	Leu	Phe	Asn	Tyr	Asn	Ile	Ala	Tyr	Glu	Ile	Arg	Leu	Gln	Glu	Ala		
385				390						395					400		
Leu	Glu	Ser	Asn	Ile	Leu	Cys	Pro	Phe	His	Tyr	Phe	Gly	Val	Thr	Asp		
			405						410					415			
Tyr	Ile	Gln	Asn	Glu	Met	Ser	Gln	Glu	Asp	Ala	Phe	Asn	Leu	Lys	Tyr		
		420						425					430				
Leu	Ala	Ser	Asn	Glu	Arg	Val	Glu	His	Ile	Ile	Lys	Lys	Thr	Asn	Tyr		
	435						440					445					
Tyr	Gly	Tyr	Ser	Gly	Asp	Val	Val	Lys	Gly	Leu	Ile	Phe	Val	Ser	Ser		
	450					455					460						
Arg	Gly	Glu	Ala	Tyr	Gln	Leu	Ala	Asn	Gln	Leu	Ser	Lys	Arg	Gly	Ile		
465				470						475					480		
Ser	Ser	Val	Gly	Leu	Thr	Gly	Lys	Asp	Ser	Ile	Ala	Tyr	Arg	Thr	Glu		
			485					490						495			
Thr	Ile	Gln	Gln	Leu	Lys	Glu	Gly	Ser	Ile	Asn	Tyr	Ile	Ile	Thr	Val		
		500						505					510				
Asp	Leu	Phe	Asn	Glu	Gly	Ile	Asp	Ile	Pro	Glu	Ile	Asn	Gln	Val	Val		
	515						520					525					
Met	Leu	Arg	Pro	Thr	Lys	Ser	Ser	Ile	Ile	Phe	Ile	Gln	Gln	Leu	Gly		
530						535					540						
Arg	Gly	Leu	Arg	Lys	Ser	Thr	Asn	Lys	Glu	Phe	Val	Thr	Val	Ile	Asp		
545				550						555					560		
Phe	Ile	Gly	Asn	Tyr	Lys	Thr	Asn	Tyr	Met	Ile	Pro	Ile	Ala	Leu	Ser		
			565					570						575			
Gly	Asn	Lys	Ser	Gln	Asn	Lys	Asp	Asn	Tyr	Arg	Lys	Phe	Leu	Thr	Asp		
		580					585						590				
Thr	Thr	Val	Leu	Asn	Gly	Val	Ser	Thr	Ile	Asn	Phe	Glu	Glu	Val	Ala		
	595						600					605					
Lys	Asn	Lys	Ile	Tyr	Asn	Ser	Leu	Asp	Ser	Val	Lys	Leu	Asn	Gln	Pro		

610	615	620
Lys Leu Ile Lys Glu Ala Phe Asn Asn Val Lys Asp Arg Ile Gly Lys		
625	630	635
Leu Pro Leu Leu Met Asp Phe Ile Asn Asn Asp Ser Ile Asp Pro Ser		640
	645	650
Val Ile Phe Ser Arg Phe Lys Asn Tyr Tyr Glu Phe Leu Ile Lys Asn		655
	660	665
Lys Ile Ile Glu Asn Glu Leu Ser Ile Asn Glu Phe Lys Asn Leu Thr		670
	675	680
Phe Leu Ser Arg Gln Leu Ser Pro Gly Leu Lys Lys Val Asp Ile Asp		685
	690	695
Val Leu Lys Glu Val Ile Gln Asn Asp Val Thr Tyr Glu Asn Leu Thr		700
705	710	715
Lys Lys Met Leu Asn Ile Asn Asn Asp Ile Ser Glu Tyr Asp Ile Asn		720
	725	730
Thr Ser Leu Ser Ile Leu Asp Phe Thr Phe Phe Lys Lys Thr Ile Gly		735
	740	745
Lys Thr Tyr Gly Leu Pro Leu Ile Gln Tyr Lys Asp Asn Leu Ile Cys		750
	755	760
Leu Ala Asn Glu Phe Lys Glu Ala Leu Asn Lys Pro Leu Phe Asn Thr		765
	770	775
Phe Val His Asp Leu Ile Asp Leu Ala Asn Tyr Asn Asn Asp Arg Tyr		780
785	790	795
Gln Asn Lys Lys Asn Ser Leu Ile Leu Tyr Asn Lys Tyr Ser Arg Glu		800
	805	810
Asp Phe Val Lys Leu Leu Asn Trp Asp Lys Asp Glu Ser Gly Thr Ile		815
	820	825
Asn Gly Tyr Arg Met Lys His Arg Thr Leu Pro Leu Phe Ile Thr Tyr		830
	835	840
Asp Lys His Glu Asn Ile Ser Asp Asn Thr Lys Tyr Asp Asp Glu Phe		845
	850	855
Leu Ser Gln Asp Glu Leu Lys Trp Tyr Thr Arg Ser Asn Arg Lys Leu		860
865	870	875
Thr Ser Pro Glu Val Gln Asn Ile Leu Lys His Glu Glu Asn Asn Thr		880
	885	890
Asp Met Tyr Ile Phe Val Lys Lys Arg Asp Asp Glu Gly Lys Tyr Phe		895
	900	905
Tyr Tyr Leu Gly Lys Ala Lys Tyr Ile Lys Gly Thr Glu Lys Gln Asp		910
	915	920
Tyr Met Pro Asn Gly Asn Ser Val Val Thr Met His Leu Ser Met Asn		925
	930	935
Thr Ser Ile Arg Asp Asp Ile Tyr Arg Tyr Ile Thr		940
945	950	955

<210> 4923

<211> 51

<212> PRT

<213> S.epidermidis

<400> 4923

Asn Ile Val Ser Tyr Met Leu Ser Leu Arg Tyr Leu Gln Thr Ser Phe
1 5 10 15
Asn Glu Ile Thr Leu Cys Lys His Tyr Lys Met Ile Thr Pro His Thr
20 25 30
Asn Val His Phe Ser Asp Lys Val Met Leu Val Val Lys Lys Glu Arg
35 40 45

Asn Gln Gly
50

<210> 4924
<211> 42
<212> PRT
<213> S.epidermidis

<400> 4924
Thr Thr Pro Ser Ala Pro Leu Leu Arg Ser Asn Lys Asp Lys Ala Ile
1 5 10 15
Asp Ile Ile Asn Val His Leu Leu Gly Met Leu Thr Ile Lys Met Asp
20 25 30
Lys Ile Ile Asn His Ser Ile Asn Leu Arg
35 40

<210> 4925
<211> 69
<212> PRT
<213> S.epidermidis

<400> 4925
Pro Phe Tyr Ser Cys Phe Lys Val Lys Phe Phe Lys Lys Tyr Glu Ile
1 5 10 15
Asp Leu Lys Lys Asp Ile Leu Phe Met Lys Ser Lys Leu Asn Glu Arg
20 25 30
Leu Glu Met Lys Asn Arg Asp Cys Gly Ser Met Lys Val Tyr Lys Lys
35 40 45
Ser Arg Thr Glu Phe Asn Leu Asn Ser Leu Phe Tyr Ser Leu Ile Leu
50 55 60
Tyr Arg Asn Ile Cys
65

<210> 4926
<211> 287
<212> PRT
<213> S.epidermidis

<400> 4926
Lys Ser Asn Arg Lys Thr Leu Lys Leu Leu Tyr Gly Tyr Ile Lys Met
1 5 10 15
Lys Ile Asn Val Leu Cys Glu Lys Arg Asp Asn Met Asp Ile Lys Gln
20 25 30
Ser Ser Glu Lys Gln Gly Arg Pro His His Leu Ser Asp Ser Arg Thr
35 40 45
Val Leu Lys Arg Asn Phe Ile Leu Ile Pro Thr Tyr Ile Leu Leu Gln
50 55 60
Ser Ile Ile Pro Ile Ile Val Val Phe Gly Ser Leu Gly Ile Thr Ala
65 70 75 80
Met Ile Thr Gln Gln Ala Pro Pro Gln Trp Leu Tyr His Cys Ser Leu
85 90 95
Ser Leu Ser Phe Val Ile Ala Gln Gly Leu Ile Leu Ile Ile Phe Tyr
100 105 110
Lys Ile His Gln Ser Val Ile Asn Asp Val Met Lys Gln Gln Trp Ile
115 120 125
Ile Ala Lys Asn Lys Ile Ile Lys Ile Val Ile Val Ala Ile Val Val

130		135		140
Tyr Leu Leu Leu Leu Ile	Ile Arg Val Ile Gly Thr Ser Leu Pro Asn			
145		150		155
His Leu Ser Tyr His Leu Thr Gln Ser Glu Gln Arg Thr Leu Gly Leu				160
		165		170
Phe Lys Ser Pro Tyr Val Leu Leu Val Thr Phe Ile Ser Met Val Phe				175
		180		185
Leu Arg Pro Met Val Glu Gln Ile Ile Tyr Arg Tyr Leu Ile Ile His				190
		195		200
Glu Leu Gly Lys Val Trp Asn Arg Gln Phe Val Ile Gly Leu Ser Ile				205
		210		215
Val Ile Glu Thr Ile Val His Val Tyr Asp Met Ala Ser Ile Phe Glu				220
225		230		235
Ile Phe Pro Tyr Ile Val Ile Ala Ser Ala Ala Thr Ile Leu Tyr Ile				240
		245		250
Lys Ser Arg Asp Asn Leu Ile Val Ala Tyr Ile Phe Gln Val Ile Leu				255
		260		265
Gln Cys Ile Leu Phe Ile Glu Ile Leu Cys Lys Tyr Thr Asn Phe				270
		275		280
				285

<210> 4927

<211> 46

<212> PRT

<213> S.epidermidis

<400> 4927

Lys Tyr Phe Arg Val Cys Val Asp Val Leu Asn Phe Glu Thr Lys Ser	
1	5
Lys Gly Glu Tyr Glu Asp Glu Val Phe Ser Ser Ile Val Glu Ser His	
	20
His Lys Asp Asn Glu Leu Thr Thr Ile Ile Asn Tyr Lys Arg	
	35
	40
	45

<210> 4928

<211> 285

<212> PRT

<213> S.epidermidis

<400> 4928

Leu Gln Leu Arg Val Lys Arg Arg Lys Ala Ser Asp Lys Val Lys Asp	
1	5
Asn Asn Glu Val Leu Lys Leu Phe Ile Val Ser Asp Ser Ile Gly Glu	
	20
Thr Ala Gln Arg Met Ile His Ala Thr Leu Thr Gln Phe Pro Asp Leu	
	35
Thr Gln Val Glu Ile Lys Lys Phe Pro Tyr Ile Lys Asp Glu Gln Glu	
	50
Phe Leu Asn Val Leu Gln Leu Ala Lys Glu Gln Asn Ala Ile Val Ala	
65	70
Thr Thr Leu Val Ser Glu Ser Phe Asn Ala Leu Gly His Gln Phe Ala	
	85
Asn Glu His Gln Ile Pro Tyr Val Asp Tyr Met Ser Glu Leu Ile Ser	
	100
Ile Ile Lys Gln His Thr His Ala Lys Pro Leu Met Glu Ser Gly Ala	
	115
Leu Arg Lys Leu Asn Asp Glu Tyr Phe Lys Arg Ile Glu Ala Ile Glu	
	120
	125

130		135		140
Tyr Ser Val Lys Tyr Asp Asp Gly Lys His Phe Thr Asp Ile Gly Glu				
145		150		155
Ala Asp Ala Leu Ile Val Gly Val Ser Arg Thr Ser Lys Thr Pro Leu				160
		165		170
Ser Met Tyr Leu Ala Asn Lys Gly Tyr Lys Ile Ala Asn Ile Pro Leu				175
		180		185
Val Pro Glu Val Ala Ile Pro Asp Asn Val Phe Gln Gln Lys Asn Leu				190
		195		200
Lys Val Phe Gly Leu Thr Ala Ser Pro Asn Tyr Ile Ala Asn Ile Arg				205
		210		215
Arg Asn Arg Ala Glu Thr Leu Gly Leu Ser Ser Glu Ser Asn Tyr Asn				220
225		230		235
Ser Leu Glu Arg Ile Lys Lys Glu Leu Ser Tyr Ala Glu Glu Val Phe				240
		245		250
Arg Lys Leu Asn Ala Thr Val Ile Asn Thr Glu Tyr Lys Ser Ile Glu				255
		260		265
Glu Ser Ala Phe Tyr Ile Glu Lys Phe Leu Ala Lys Arg				270
		275		280
				285

<210> 4929

<211> 42

<212> PRT

<213> S.epidermidis

<400> 4929

Arg Met Cys Arg Leu Ile Cys Ile Phe Gly Ile Phe Asn Leu Glu Val	
1	5
Lys Thr Asn Ser Lys Thr Ile Ala Met Ala Lys Asp Met Ile Lys Phe	10
	15
	20
Ile Lys Lys Gly Val Leu Arg Met Ile Tyr	25
	30
	35
	40

<210> 4930

<211> 50

<212> PRT

<213> S.epidermidis

<400> 4930

Thr Ser Leu Ser Lys Trp Gly Thr Ser Ser Ala Glu Tyr Ile Gly Ile	
1	5
Ala Ser Thr Ile Ala Thr Thr Ile Glu Pro Asn Gln Gln Ile Arg Arg	10
	15
	20
Ala Leu Leu Pro Arg Asn Phe Ser Val Cys Cys Pro Gly Cys Ile Pro	25
	30
	35
	40
	45
Ser Lys	
50	

<210> 4931

<211> 219

<212> PRT

<213> S.epidermidis

<400> 4931

Val Tyr Leu Arg Ser Val Cys Met Glu Ile Leu Val Thr Ala Phe Glu	
1	5
	10
	15

			180					185					190				
Ala	Ala	Glu	Gln	Asp	Ile	Ile	Leu	Met	Asp	Glu	Pro	Phe	Gly	Ala	Leu		
		195					200					205					
Asp	Pro	Ile	Thr	Arg	Asp	Thr	Leu	Gln	Asp	Leu	Val	Lys	Glu	Leu	Gln		
	210					215					220						
Gln	Lys	Leu	Gly	Lys	Thr	Phe	Ile	Phe	Val	Thr	His	Asp	Met	Asp	Glu		
225					230					235					240		
Ala	Ile	Lys	Leu	Ala	Asp	Lys	Ile	Cys	Ile	Met	Ser	Lys	Gly	Lys	Val		
			245					250						255			
Val	Gln	Tyr	Asp	Thr	Pro	Asp	Asn	Ile	Leu	Arg	Tyr	Pro	Ala	Asn	Asp		
		260					265						270				
Phe	Val	Arg	Asp	Phe	Ile	Gly	Gln	Asn	Arg	Leu	Ile	Gln	Asp	Arg	Pro		
	275					280						285					
Asn	Met	Lys	Ser	Val	Glu	Ser	Ala	Met	Ile	Lys	Pro	Val	Thr	Val	Lys		
	290					295					300						
Ala	Asp	Asp	Ser	Leu	Asn	Asp	Ala	Val	Asn	Ile	Met	Arg	Thr	Arg	Arg		
305					310					315					320		
Val	Asp	Thr	Ile	Phe	Val	Val	Asn	Asn	Gln	Asn	Lys	Leu	Leu	Gly	Phe		
			325						330					335			
Leu	Asp	Ile	Glu	Asp	Ile	Asn	Gln	Gly	Leu	Arg	Ala	Arg	Lys	Glu	Leu		
		340						345					350				
Ile	Asp	Thr	Met	Gln	Arg	Asp	Val	Tyr	Lys	Val	His	Ile	Asn	Ser	Lys		
	355						360					365					
Leu	Gln	Asp	Ser	Val	Arg	Thr	Ile	Leu	Lys	Arg	Asn	Val	Arg	Asn	Val		
	370					375					380						
Pro	Val	Val	Asp	Asn	Asp	Glu	His	Leu	Ile	Gly	Leu	Ile	Thr	Arg	Ala		
385					390					395					400		
Asn	Leu	Val	Asp	Ile	Val	Tyr	Asp	Ser	Ile	Trp	Gly	Glu	Glu	Asp	Ser		
			405					410						415			
Asp	Ser	Tyr	Glu	Ile	Pro	Asn	Glu	Ser	Leu	Asp	Glu	Asn	Asn	His	Asp		
		420						425					430				
Leu	Pro	Gln	Asn	Gln	Thr	Asp	Thr	Arg	Thr	Asn	Ile	Asn	Glu	Asp	Val		
	435						440					445					
Asn	Asp	Tyr	His	Asp	Ala	Gln	His	Arg	Gly	Glu	Asp						
	450					455					460						

<210> 4933

<211> 40

<212> PRT

<213> S.epidermidis

<400> 4933

Asn	Leu	Ile	Ser	Asn	Lys	Thr	Lys	Val	Tyr	Val	Lys	Asp	Val	Tyr	Gln
1				5					10					15	
Arg	Asp	His	Val	His	Phe	Leu	Thr	Met	Asn	Lys	Val	Asp	Leu	Lys	Ile
		20						25					30		
Arg	Lys	Glu	Glu	Gln	Arg	Arg	Cys								
		35					40								

<210> 4934

<211> 586

<212> PRT

<213> S.epidermidis

<400> 4934

Lys Gly Arg Leu Phe Val Lys Met Ala Gln Ile Lys Ala Asn Glu Ala

1			5					10				15		
Leu	Val	Lys	Ala	Leu	Gln	Thr	Trp	Asn	Ile	Asp	His	Leu	Tyr	Gly
			20					25				30		
Pro	Gly	Asp	Ser	Val	Asp	Ala	Val	Val	Asp	Ser	Leu	Arg	Thr	Val
		35					40					45		Arg
Asp	Gln	Phe	Lys	Phe	Tyr	His	Val	Arg	His	Glu	Gln	Val	Ala	Ser
						55					60			Leu
Ala	Ala	Ala	Ser	Tyr	Thr	Lys	Met	Thr	Gly	Lys	Ile	Gly	Val	Ala
65					70					75				80
Ser	Ile	Gly	Gly	Pro	Gly	Ile	Val	His	Leu	Leu	Asn	Gly	Met	Tyr
				85					90					95
Ala	Lys	Met	Asp	Asn	Val	Pro	Gln	Leu	Ile	Ile	Ala	Gly	Gln	Thr
			100					105					110	Asn
Ser	Thr	Leu	Leu	Gly	Thr	Lys	Phe	Gln	Gln	Thr	Asn	Ile	Ser	Lys
		115					120					125		
Met	Val	Asp	Asp	Val	Ala	Val	Tyr	His	His	Gln	Ile	Gln	Lys	Gly
		130				135					140			Asp
Asn	Val	Phe	Glu	Ile	Thr	Asn	Glu	Ala	Ile	Arg	Thr	Ala	Tyr	Glu
145					150					155				Lys
Lys	Gly	Val	Ser	Val	Ile	Ile	Cys	Pro	Asn	Asp	Leu	Leu	Thr	Gln
				165					170					Lys
Ile	Lys	Asp	Thr	Thr	Asn	Arg	Ala	Val	Asp	Thr	Thr	Lys	Pro	Lys
			180				185						190	Pro
Ala	Ser	Pro	Lys	Phe	Lys	Ser	Ile	Lys	Lys	Ala	Ala	Lys	Leu	Ile
		195				200					205			Asp
Lys	Ala	Lys	Lys	Pro	Val	Met	Leu	Ile	Gly	Leu	Gly	Thr	Gln	His
	210					215					220			Ala
Lys	Asp	Glu	Leu	Arg	Glu	Phe	Ile	Glu	Ala	Ala	Lys	Ile	Pro	Val
225					230					235				Ile
His	Thr	Leu	Pro	Ala	Lys	Thr	Ile	Leu	Pro	Asp	Asp	His	Pro	Tyr
				245					250					Ser
Ile	Gly	Asn	Leu	Gly	Lys	Ile	Gly	Thr	Lys	Thr	Ser	Tyr	Gln	Thr
			260				265						270	Ile
Gln	Asp	Ala	Asp	Leu	Leu	Ile	Met	Ala	Gly	Thr	Asn	Tyr	Pro	Tyr
		275					280					285		Val
Asn	Tyr	Leu	Pro	Lys	Lys	Asn	Ile	Lys	Ala	Ile	Gln	Ile	Asp	Thr
	290					295					300			Asn
Glu	Glu	Asn	Ile	Gly	Ala	Arg	Phe	Lys	Ile	Asn	Val	Gly	Ile	Leu
305					310					315				Gly
Asp	Ser	Lys	Val	Ala	Phe	His	Gln	Leu	Thr	Glu	Asn	Ile	Lys	His
				325					330					Val
Ala	Lys	Arg	Pro	Phe	Leu	Asp	Lys	Thr	Leu	Glu	Arg	Lys	Ala	Val
			340					345					350	Trp
Asp	Lys	Trp	Met	Lys	Gln	Asp	Leu	Asn	Asn	Asp	Asn	Ser	Pro	Leu
		355					360					365		Arg
Pro	Glu	Arg	Leu	Met	Lys	Ala	Ile	Asn	Ala	Asn	Leu	Lys	Asp	Asp
	370					375					380			Ala
Ile	Ile	Ser	Ala	Asp	Val	Gly	Thr	Ser	Thr	Val	Trp	Ser	Thr	Arg
385					390					395				Tyr
Leu	Asn	Leu	Ser	Val	Asn	Asn	Lys	Phe	Ile	Ile	Ser	Ser	Trp	Leu
				405					410					Gly
Thr	Met	Gly	Cys	Gly	Leu	Pro	Gly	Ala	Met	Ala	Ala	Lys	Ile	Ala
			420					425					430	Tyr
Pro	Asn	Arg	Gln	Ala	Val	Ala	Ile	Thr	Gly	Asp	Gly	Ala	Phe	Gln
		435					440					445		Met
Val	Met	Gln	Asp	Phe	Ala	Thr	Ala	Val	Gln	Tyr	Asn	Leu	Pro	Met
														Thr

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<210> 4935
<211> 108
<212> PRT
<213> S.epidermidis
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<210> 4936
<211> 51
<212> PRT
<213> S.epidermidis
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<210> 4937
<211> 48
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<212> PRT

<213> S.epidermidis

<400> 4937

Thr	Asn	Gln	Ser	Ile	Asn	Leu	Cys	Ser	Pro	Lys	Asp	Tyr	Leu	Ile	Ile
1				5					10					15	
Ala	Ile	Ala	Arg	Phe	His	Ile	Ile	Ser	Arg	Phe	Glu	Ser	Asn	Tyr	Phe
			20					25					30		
Ser	Glu	Arg	Ile	Pro	Val	Val	Ile	Asn	Ile	Asp	His	Phe	Leu	Ile	Ser
		35					40					45			

<210> 4938

<211> 236

<212> PRT

<213> S.epidermidis

<400> 4938

Ile	Ile	Glu	Arg	Lys	Phe	Leu	Phe	Met	Pro	Lys	Leu	Ile	Leu	Cys	Arg
1				5					10					15	
His	Gly	Gln	Ser	Glu	Trp	Asn	Ala	Lys	Asn	Leu	Phe	Thr	Gly	Trp	Ala
			20					25					30		
Asp	Val	Lys	Leu	Ser	Lys	Gln	Gly	Ile	Glu	Glu	Ala	Gln	Ser	Ala	Gly
		35					40					45			
Lys	Lys	Ile	Tyr	Asp	Asn	Gln	Ile	Glu	Ile	Asp	Ile	Ala	Phe	Thr	Ser
	50					55				60					
Leu	Leu	Thr	Arg	Ala	Leu	Glu	Thr	Thr	Gln	Tyr	Ile	Leu	Ala	Gly	Ser
65					70					75				80	
Asp	Gln	Gln	Trp	Ile	Pro	Val	Tyr	Lys	Ser	Trp	Arg	Leu	Asn	Glu	Arg
				85				90					95		
His	Tyr	Gly	Gly	Leu	Gln	Gly	Leu	Asn	Lys	Asp	Asp	Ala	Arg	Lys	Lys
			100					105					110		
Trp	Gly	Glu	Asp	Gln	Val	His	Gln	Trp	Arg	Arg	Ser	Tyr	Asp	Val	Arg
		115					120					125			
Pro	Pro	Arg	Glu	Ser	Glu	Glu	Gln	Arg	Glu	Ala	Tyr	Leu	Lys	Asn	Arg
	130					135					140				
Arg	Tyr	Gln	His	Ile	Asp	His	Arg	Met	Met	Pro	Tyr	Cys	Glu	Ser	Leu
145					150					155					160
Lys	Asp	Thr	Leu	Glu	Arg	Val	Val	Pro	Phe	Trp	Thr	Asp	His	Ile	Ser
				165				170						175	
Gln	His	Leu	Leu	Asp	Asp	Lys	Thr	Val	Leu	Val	Ser	Ala	His	Gly	Asn
			180					185					190		
Ser	Ile	Arg	Ala	Leu	Ile	Lys	Tyr	Leu	Glu	Gly	Leu	Ser	Glu	Glu	Asp
		195				200					205				
Ile	Val	Gly	Tyr	Glu	Ile	Lys	Thr	Gly	Ala	Pro	Leu	Val	Tyr	Glu	Leu
	210					215					220				
Thr	Asp	Asp	Leu	Val	Val	Lys	Asp	Lys	Tyr	Tyr	Leu				
225					230					235					

<210> 4939

<211> 300

<212> PRT

<213> S.epidermidis

<400> 4939

Gly	Val	Glu	Ser	Met	Asn	Lys	Glu	Gln	Leu	Glu	Lys	Met	Thr	His	Gly
1				5					10					15	

Lys Gly Phe Ile Ala Ala Leu Asp Gln Ser Gly Gly Ser Thr Pro Lys
 20 25 30
 Ala Leu Lys Glu Tyr Gly Val Asn Glu Asp Gln Tyr Ser Asn Glu Asp
 35 40 45
 Glu Met Phe Gln Leu Val His Asp Met Arg Thr Arg Val Val Thr Ser
 50 55 60
 Pro Ser Phe Ser Pro Asp Lys Ile Leu Gly Ala Ile Leu Phe Glu Gln
 65 70 75 80
 Thr Met Asp Arg Glu Val Glu Gly Lys Tyr Thr Gly Asp Tyr Leu Ala
 85 90 95
 Asp Lys Gly Val Val Pro Phe Leu Lys Val Asp Lys Gly Leu Ala Glu
 100 105 110
 Glu Lys Asn Gly Val Gln Leu Met Lys Pro Ile Asp Asp Leu Asp Glu
 115 120 125
 Thr Leu Asp Arg Ala Asn Glu Arg His Ile Phe Gly Thr Lys Met Arg
 130 135 140
 Ser Asn Ile Leu Glu Leu Asn Glu Gln Gly Ile Lys Asp Val Val Glu
 145 150 155 160
 Gln Gln Phe Glu Phe Ala Lys Lys Ile Ile Ala Lys Gly Leu Val Pro
 165 170 175
 Ile Ile Glu Pro Glu Val Asn Ile Asn Ala Lys Asp Lys Ser Glu Ile
 180 185 190
 Glu Lys Val Leu Lys Ala Glu Ile Lys Lys Gly Leu Asp Ser Leu Asn
 195 200 205
 Asp Asp Gln Leu Val Met Leu Lys Leu Thr Ile Pro Thr Glu Ala Asn
 210 215 220
 Leu Tyr Lys Asp Leu Ala Asp His Pro Asn Val Val Arg Val Val Val
 225 230 235 240
 Leu Ser Gly Gly Tyr Ser Arg Asp Glu Ala Asn Lys Leu Leu Lys Asp
 245 250 255
 Asn Asp Glu Leu Ile Ala Ser Phe Ser Arg Ala Leu Ala Ser Asp Leu
 260 265 270
 Arg Ala Ser Gln Ser Gln Glu Glu Phe Asp Lys Ala Leu Gly Asp Ala
 275 280 285
 Val Asp Ser Ile Tyr Asp Ala Ser Val Asn Lys Asn
 290 295 300

<210> 4940

<211> 284

<212> PRT

<213> S.epidermidis

<400> 4940

Gln Lys Gly Ser Ile Thr Met His Lys Arg Leu Phe Ile Thr Leu Leu
 1 5 10 15
 Gly Phe Ile Ile Leu Leu Ala Gly Cys Asp Tyr Ser Lys Glu Glu Asn
 20 25 30
 Gln Thr Gly Ile Phe Tyr Asn Val Phe Val Lys Ser Met Asp Gly Phe
 35 40 45
 Leu His Phe Leu Gly Arg Val Phe Gln Asp Asn Tyr Gly Phe Ala Ile
 50 55 60
 Ile Ser Ile Val Leu Ile Val Arg Phe Ile Leu Leu Pro Phe Met Leu
 65 70 75 80
 Ile Gln Val Lys Asn Met His Met Met Arg Glu Lys Thr Lys Val Val
 85 90 95
 Gln Pro Glu Leu Asp Ala Ile Arg Asp Lys Met Lys His Ala Thr Ser

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<210> 4941
<211> 453
<212> PRT
<213> S.epidermidis
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Asn	Ser	Leu	Arg	Val	Tyr	Lys	Tyr	Asn	His	Ala	Lys	Cys	Ile	Tyr	Ile
1				5					10					15	
Tyr	Tyr	Ile	Ile	Thr	Phe	Leu	Asn	Ile	Ser	Asn	Asn	Ser	Tyr	Leu	Glu
			20					25					30		
Arg	Ile	Ser	Phe	Met	Lys	Lys	Leu	Ile	Thr	Leu	Ile	Val	Met	Ile	Ser
			35				40					45			
Phe	Val	Leu	Ala	Ser	Cys	Gly	Gly	Thr	Ser	Ser	Thr	Asp	Lys	Asp	Thr
	50					55					60				
Leu	Asn	Val	Glu	Ile	Pro	Leu	Lys	Thr	Lys	Ser	Ile	Ala	Pro	Tyr	Glu
65				70					75					80	
Thr	Asp	Ile	Pro	Val	Lys	Thr	Gly	Ala	Leu	Glu	Ser	Leu	Phe	Lys	Met
				85				90						95	
Ser	Lys	Asn	Gly	Lys	Val	Lys	Pro	Leu	Leu	Val	Lys	Asn	Tyr	His	Gln
			100					105					110		
Val	Ser	Asp	Asn	Gln	Leu	Glu	Leu	Thr	Leu	Lys	Asp	Asn	Ile	Lys	Phe
			115				120					125			
Gln	Asn	Gly	His	His	Leu	Thr	Gly	Glu	Ala	Val	Lys	Arg	Ser	Leu	Glu
			130				135				140				
Glu	Gly	Met	Lys	Lys	Ser	Asp	Leu	Leu	Lys	Gly	Ser	Leu	Pro	Ile	Lys
145				150						155				160	
Ser	Ile	Asn	Ala	His	Gly	Gln	Lys	Val	Thr	Ile	Thr	Thr	Lys	Glu	Pro
				165					170					175	
Tyr	Pro	Glu	Leu	Met	Ser	Glu	Leu	Ala	Ser	Pro	Phe	Ala	Ala	Ile	Tyr
			180					185					190		
Asp	Thr	Lys	Ala	Lys	Asn	Lys	Val	Thr	Asp	Gln	Pro	Val	Gly	Thr	Gly
			195				200					205			

Pro Tyr Lys Ile Asp Gln Tyr Lys Arg Ser Gln Lys Ile Val Leu Lys
 210 215 220
 Gln Phe Lys Asp Tyr Trp Gln Gly Thr Pro Lys Leu Lys Arg Ile Asn
 225 230 235 240
 Val Thr Tyr His Glu Asp Gly Asn Thr Arg Val Asp His Leu Leu Ser
 245 250 255
 Gly Lys Ser Asp Leu Thr Thr Asp Val Pro Ile Glu Arg Val Asp Asp
 260 265 270
 Val Lys Lys Ser Asn Lys Ala Asn Ile Gln Ser Thr Ser Gly Phe Arg
 275 280 285
 Thr His Leu Met Leu Tyr Asn His Asp Ser Lys Lys Val Asn Lys Lys
 290 295 300
 Val Arg Glu Ala Leu Asp Met Ile Ile Asn Arg Lys Asp Ile Ala Lys
 305 310 315 320
 Asn Val Ser Lys Asn Tyr Ala Glu Pro Ala Ser Gly Pro Phe Asn His
 325 330 335
 Arg Leu Lys Ser Leu Glu Lys Glu Glu Ile Gln Ser Gln Asp Ile Lys
 340 345 350
 Arg Ala Lys Glu Leu Leu Ala Gln Glu Gly Tyr Ser Lys Ser His Pro
 355 360 365
 Leu Lys Leu Asn Met Val Thr Tyr Asp Gly Arg Pro Glu Leu Pro Lys
 370 375 380
 Ile Gly Gln Val Ile Gln Ser Glu Ala Lys Lys Ala Asn Val Asp Ile
 385 390 395 400
 Gln Leu Arg Asn Val Asp Asp Ile Glu Gly Tyr Leu Lys Asn Lys Gln
 405 410 415
 Ser Trp Asp Val Ser Met Tyr Ser Tyr Leu Ser Val Pro Arg Gly Asp
 420 425 430
 Thr Gly Tyr Phe Phe Asn Thr Ala Tyr Leu Pro Asp Gly Ala Leu Asn
 435 440 445
 Lys Gly Asn Tyr Arg
 450

<210> 4942

<211> 476

<212> PRT

<213> S.epidermidis

<400> 4942

Gly His Met Arg Tyr Arg Met Thr Leu Gln Asn His Leu Lys His Arg
 1 5 10 15
 Ile Leu Leu Ile Tyr Gly Asp Asn Ser Leu Lys Arg Cys Tyr Met Ile
 20 25 30
 Asn Leu Phe Glu Asn Tyr Asn Gln Glu Thr Gln Glu Leu His Gln Ser
 35 40 45
 Leu Lys Arg Ala Gly Tyr Asn His Phe Thr Ile Val Ile Asn Asp Asp
 50 55 60
 Gly Phe Leu Pro Asp Asp Val Thr Ser Pro Tyr Arg Phe Phe Thr Ala
 65 70 75 80
 Tyr Gln Ile Tyr Glu Asp Asp Thr Pro Ala Phe Phe Asn Asp Ile Asp
 85 90 95
 Thr Pro Pro Phe Trp Glu Ile Lys Gly Asp Ala Thr Met Ala Thr Ile
 100 105 110
 Thr Asp Met Gly Glu Leu Arg Gly Lys Ile Phe Tyr Lys Glu His Tyr
 115 120 125
 Lys Thr Arg Val Val Ser His Val Glu Trp Leu Asp Ser Lys Gln Arg

130	135	140
Leu Arg Ser Val Asp Tyr Tyr Thr Lys Glu Gly Phe Lys Phe Ala Glu		
145	150	155
Thr Val Tyr Asp Leu Leu Gly Asn Ala Ile Leu Lys Lys Tyr Met Thr		160
	165	170
Arg Glu Gly Lys Glu Val Ile Tyr Glu Asn Tyr Val Thr Asn Asp Val		175
	180	185
Val Val Glu Tyr Glu Gly Lys Ser Tyr Phe Phe Glu Ser Tyr Thr Glu		190
	195	200
Trp Ile Lys Phe Tyr Leu Ser Glu Met Gly Ile Glu Ile Lys Glu Val		205
	210	215
Ile Phe Asn Thr Leu Ser Thr Pro Phe Leu Ala Ile Tyr His Leu Pro		220
225	230	235
Thr Leu Lys Lys Gly Ile Leu Phe Trp Gln Glu Gln Ser Gln Gly Tyr		240
	245	250
Val Pro Gly Asn Met Lys Val Met Leu Ser Pro Asn Leu Gln Ser Arg		255
	260	265
Phe Ala Val Ile Val Pro Asn Gln Asn Glu Tyr Lys Leu Ile Lys Glu		270
	275	280
Gln Leu Ser Arg Glu Glu Gln Gln Ala Val Tyr Ala Ser Gly Tyr Leu		285
	290	295
Tyr Asp Thr Tyr Lys Arg Asn His Tyr Ser Lys Asn Val Leu Thr Leu		300
305	310	315
Thr Asn Ser Asp Gln Ile Pro His Val Glu Thr Leu Val Arg Leu His		320
	325	330
Lys Asp Tyr Gln Phe His Ile Gly Ala Lys Thr Glu Met Ser Ser Lys		335
	340	345
Leu Leu Ser Leu Ser Gln Tyr Glu Asn Val Lys Leu Tyr Pro Ile Ile		350
	355	360
Lys Glu Gln Thr Val Gln Thr Leu Tyr Gln Gln Cys Asp Ile Tyr Leu		365
	370	375
Asp Ile Asn Glu Gly Asn Glu Ile Gly Asn Ala Val Arg Ser Ala Tyr		380
385	390	395
Asn His Gln Leu Leu Ile Met Gly Tyr Lys Glu Val Val His Asn Gln		400
	405	410
Asp Phe Val Ala Ile Glu Asn Gln Phe Leu Val Asn Asp Ile Ser Gln		415
	420	425
Leu Ser Asn Ala Leu Lys Glu Ile Gly Asn His Arg Gly Gln Phe Glu		430
	435	440
Thr Arg Leu Ala Leu Gln Gln Arg His Ala Asn Ala Val Pro Val Ser		445
	450	455
Thr Phe Lys Tyr Ala Leu Val Gln Ala Leu Ser Gly		460
465	470	475

<210> 4943

<211> 260

<212> PRT

<213> S.epidermidis

<400> 4943

Met Val Met Ser Asn Thr Ala Leu Cys Leu Thr Ala Leu Leu Leu Leu	
1	5
Ile Pro Ile Phe Ile Ser Tyr Lys Glu Gly Leu His Ile Ile Lys Asp	10
	15
	20
	25
Leu Val Ile Ala Thr Ile Arg Ala Thr Ile Gln Leu Leu Ile Leu Gly	30
	35
	40
	45

1950

Phe	Leu	Leu	His	Tyr	Ile	Phe	Glu	Ile	Asn	Glu	Lys	Trp	Leu	Leu	Val
50						55					60				
Leu	Cys	Val	Leu	Val	Ile	Ile	Ile	Asn	Ala	Ser	Trp	Asn	Thr	Ile	Ser
65					70					75					80
Arg	Ala	Ser	Pro	Val	Met	His	His	Val	Phe	Trp	Ile	Ser	Phe	Val	Ala
				85					90					95	
Ile	Phe	Val	Gly	Thr	Ala	Leu	Pro	Leu	Ala	Ala	Thr	Val	Ala	Thr	Gly
			100					105					110		
Ala	Ile	Lys	Phe	Thr	Ala	Asn	Glu	Val	Ile	Pro	Ile	Gly	Gly	Met	Leu
		115					120					125			
Ala	Asn	Asn	Gly	Leu	Ile	Ala	Ile	Asn	Leu	Ala	Tyr	Gln	Asn	Leu	Glu
	130					135					140				
Lys	Ala	Phe	Val	Gln	Asp	Val	Ser	Asp	Ile	Glu	Ser	Lys	Leu	Thr	Leu
145					150					155					160
Ala	Ala	Thr	Pro	Lys	Leu	Ala	Ser	Lys	Ser	Ser	Ile	Arg	Glu	Ser	Ile
				165					170					175	
Arg	Leu	Ala	Ile	Val	Pro	Thr	Ile	Asp	Ser	Val	Lys	Thr	Tyr	Gly	Leu
			180					185					190		
Val	Ser	Ile	Pro	Gly	Met	Met	Thr	Gly	Leu	Ile	Ile	Gly	Gly	Val	Asp
		195					200					205			
Pro	Leu	Gln	Ala	Ile	Lys	Phe	Gln	Leu	Leu	Val	Val	Phe	Ile	His	Thr
	210					215					220				
Thr	Ala	Thr	Ile	Met	Ser	Ala	Leu	Ile	Ala	Thr	Tyr	Met	Ser	Tyr	Gly
225					230					235					240
Gln	Phe	Phe	Asn	Ala	Arg	His	Gln	Leu	Ile	Ala	Arg	Thr	Gln	Arg	Thr
				245					250					255	
Arg	Gln	Ser	Ser												
			260												

<210> 4944

<211> 276

<212> PRT

<213> S.epidermidis

<400> 4944

Arg	Glu	Met	Arg	Ile	Glu	Lys	Met	Lys	Ile	Gly	Thr	Ile	Ser	Asp	Leu
1				5					10					15	
His	Ile	Asp	Arg	His	Pro	His	Leu	Asn	Pro	Glu	Ile	Tyr	Leu	Glu	Lys
			20					25					30		
Leu	Cys	Gln	Val	Ile	Lys	Gln	Arg	Ser	Ile	Glu	Leu	Leu	Ile	Ile	Ala
		35					40					45			
Gly	Asp	Ile	Ser	Asn	Asp	Tyr	Arg	Ile	Ser	Tyr	Asp	Phe	Ile	Gln	Ser
	50					55					60				
Ile	Gln	Glu	Leu	Ser	Gly	Ile	Pro	Thr	Tyr	Phe	Val	Pro	Gly	Asn	His
65					70					75				80	
Asp	Leu	Trp	Ser	Asp	Gln	Ala	Asp	Lys	Thr	Ser	Thr	Glu	Ile	Leu	Ser
				85					90					95	
Phe	Phe	Arg	Ser	Lys	Glu	Glu	Cys	Leu	Ile	Gly	Asn	Pro	Ile	Ile	Ile
			100					105					110		
Asn	Asp	Gln	Tyr	Ala	Ile	Val	Gly	His	Val	Gly	Trp	Tyr	Asp	Tyr	Ser
		115					120					125			
Tyr	Ala	Asp	His	Arg	Phe	Ser	Gln	Gln	Lys	Ile	Ala	Ser	Gly	Lys	His
	130					135					140				
Tyr	Gly	Ala	Thr	Trp	Gln	Asp	Lys	Val	Arg	Thr	Asp	Trp	Ser	Leu	Ser
145					150					155					160
Asp	Pro	Lys	Leu	Ser	Leu	Leu	Ala	Ala	Gln	Glu	Val	Glu	Lys	Asp	Ile

1951

				165					170					175			
Asn	Asn	Val	Ser	Pro	Arg	Gln	Ile	Ile	Leu	Val	Thr	His	Val	Val	Thr		
			180					185					190				
His	Pro	Gln	Phe	Val	Val	Pro	Thr	Pro	His	Arg	Ile	Phe	Asp	Phe	Phe		
		195					200					205					
Asn	Ala	Phe	Ile	Gly	Thr	His	Asp	Phe	Asp	Thr	Ile	Tyr	Arg	Asn	Tyr		
	210					215					220						
Pro	Ile	Arg	Phe	Ser	Ile	Met	Gly	His	Val	His	Phe	Arg	Lys	Lys	Leu		
225					230					235					240		
Val	Glu	Asn	Asn	Ile	Leu	Tyr	Ile	Cys	Pro	Cys	Leu	Gly	Tyr	Gln	Arg		
			245						250					255			
Gln	Trp	Met	Thr	Asp	Asp	Ile	Ala	Tyr	Glu	Ile	Asn	His	Ala	Leu	Val		
			260					265					270				
Asp	Phe	Asp	Ile														
		275															

<210> 4945

<211> 124

<212> PRT

<213> S.epidermidis

<400> 4945

Val	Gly	Val	Ser	Met	Leu	Lys	Lys	Leu	Leu	Val	Gly	Val	Ser	Val	Leu		
1				5					10					15			
Thr	Leu	Leu	Leu	Ala	Gly	Cys	Met	Ser	His	Glu	Tyr	Ala	Asp	Lys	Ile		
			20					25					30				
Asp	Lys	Ala	Val	Lys	Leu	Gln	Glu	Lys	Lys	Gln	Gln	Lys	Ile	Ala	Lys		
		35				40						45					
Asn	Asp	Ser	Gly	Asp	Glu	Val	Lys	His	Phe	Asp	Lys	Lys	Asp	Ala	Asn		
	50					55					60						
Ile	Tyr	Val	Phe	Asp	Lys	Gly	Lys	Tyr	Val	Val	Leu	Glu	Tyr	Lys	Pro		
65					70					75					80		
Leu	Ser	Asp	Asp	Ala	Glu	Ala	Arg	Tyr	Tyr	Thr	Tyr	Glu	Phe	Lys	Asp		
				85					90					95			
Lys	Lys	Ala	Tyr	Tyr	Asn	Lys	Asp	Phe	Asn	Ala	Lys	Ala	Tyr	Tyr	Gln		
			100					105					110				
Ser	His	Glu	Pro	Asp	Tyr	Lys	Glu	Glu	Asn	Met	Tyr						
		115					120										

<210> 4946

<211> 157

<212> PRT

<213> S.epidermidis

<400> 4946

Arg	Lys	Gln	Arg	Gly	Met	Val	Ile	Leu	Glu	Gln	Thr	His	Leu	Val	Lys		
1				5					10					15			
Asn	Lys	Thr	Val	Asp	Asn	Lys	Lys	Ser	Met	Lys	Tyr	Ser	Ile	Phe	Gln		
			20					25					30				
Gln	Ala	Leu	Thr	Ile	Ala	Val	Ile	Leu	Leu	Ile	Ser	Lys	Ile	Ile	Glu		
		35					40					45					
Ser	Phe	Met	Pro	Ile	Pro	Met	Pro	Ala	Ser	Val	Ile	Gly	Leu	Val	Leu		
	50					55					60						
Leu	Phe	Ile	Ala	Leu	Cys	Thr	Gly	Ile	Val	Lys	Leu	Gly	Gln	Val	Glu		
65					70					75					80		
Thr	Val	Gly	Thr	Ala	Leu	Thr	Asn	Asn	Ile	Gly	Phe	Leu	Phe	Val	Pro		

				85					90					95			
Ala	Gly	Ile	Ser	Val	Ile	Asn	Ser	Leu	Pro	Ile	Leu	Lys	Gln	Ser	Pro		
			100					105					110				
Ile	Leu	Ile	Ile	Leu	Leu	Ile	Ile	Ile	Ser	Thr	Leu	Leu	Leu	Leu	Ile		
		115					120					125					
Cys	Thr	Gly	Phe	Ala	Ser	Gln	Leu	Leu	Val	Thr	Lys	Ser	Leu	Phe	Pro		
	130					135					140						
Ser	Lys	Glu	Lys	Asn	Glu	Glu	Thr	Ser	His	Val	Gly	Gly					
145					150					155							

<210> 4947

<211> 496

<212> PRT

<213> S.epidermidis

<400> 4947

Arg	Thr	Glu	Arg	Ser	Thr	Met	Asn	Tyr	Leu	Lys	Gln	Tyr	Glu	Ser	Phe		
1				5					10					15			
Phe	Trp	Leu	Ile	Gly	Ile	Phe	Ile	Phe	Tyr	Leu	Ile	Met	Ala	Ile	Leu		
			20					25					30				
Thr	Pro	Leu	Ser	Thr	Thr	Asp	Trp	His	Ala	Tyr	Lys	Val	Asn	Leu	Ser		
		35				40						45					
Gln	Tyr	Leu	Thr	Gln	Glu	Asn	Gly	Arg	Tyr	Leu	Gly	His	Leu	Phe	Glu		
	50					55					60						
Trp	Val	Ala	Val	His	Asn	Ile	Ile	Ile	Arg	Ala	Leu	Ile	Tyr	Ala	Ile		
65				70						75					80		
Thr	Ser	Phe	Leu	Val	Ile	Tyr	Leu	Val	Ala	Tyr	Met	Val	Gln	Leu	His		
				85					90					95			
Thr	Asn	Arg	Phe	Tyr	Phe	Ile	Leu	Ser	Phe	Val	Leu	Met	Val	Thr	Val		
			100					105					110				
Pro	Asn	Thr	Ile	Tyr	Ser	Glu	Thr	Tyr	Gly	Trp	Phe	Thr	Gly	Phe	Phe		
		115				120						125					
Ser	Tyr	Ile	Pro	Ala	Thr	Val	Leu	Ser	Leu	Phe	Ile	Leu	Phe	Thr	Val		
	130					135					140						
Val	Lys	Met	Ile	Glu	Ser	His	Asp	Thr	Val	Ser	Glu	Met	Gln	Leu	Trp		
145				150						155					160		
Val	Phe	Leu	Leu	Val	Ser	Leu	Phe	Gly	Gln	Phe	Phe	Leu	Glu	Asn	Leu		
			165					170						175			
Ser	Ile	Ala	Asn	Ser	Leu	Ile	Ile	Leu	Ile	Gly	Met	Val	Val	Tyr	Phe		
			180					185					190				
Phe	Val	Lys	Lys	Arg	Leu	Ser	Tyr	Phe	Leu	Ile	Val	Gly	Phe	Met	Leu		
		195				200						205					
Ser	Cys	Ile	Gly	Asn	Ile	Ile	Met	Phe	Leu	Asn	Phe	Asn	Tyr	Phe	Leu		
	210				215						220						
Ile	Lys	Asp	Gly	Leu	Asn	Thr	His	Tyr	Ser	Ile	Ser	Asp	Ser	His	Gly		
225				230						235					240		
Met	Ile	His	Lys	Ala	Gly	Val	Thr	Leu	Phe	Lys	Leu	Val	Pro	Glu	Tyr		
			245						250					255			
Met	Phe	Ile	Asn	Gln	Met	Ile	Ile	Leu	Thr	Val	Ile	Ser	Ile	Val	Ser		
		260						265					270				
Ile	Val	Leu	Lys	Gln	Asn	Lys	Ser	Leu	Lys	His	Met	Arg	Val	Tyr			
	275				280						285						
Ile	Lys	Ile	Pro	Leu	Leu	Leu	Gly	Leu	Ile	Thr	Leu	Pro	Ile	Tyr	Lys		
	290				295						300						
Ile	Phe	Val	Tyr	Asn	Gln	Phe	His	Phe	Glu	Leu	Tyr	Lys	Ala	Ser	Phe		
305				310						315					320		

Ser Ile Ala Val Leu Asn Thr Thr Ile Cys Phe Ile Tyr Met Ile Ser
 325 330 335
 Val Ile Tyr Val Val Phe Lys Met Ile Gln Gln Arg Tyr Ile Arg Met
 340 345 350
 Ile Val Met Gly Ser Phe Ile Ala Met Ala Ser Ser Val Leu Pro Leu
 355 360 365
 Leu Phe Val Thr Pro Ile Ser Tyr Arg Asn Phe Tyr Phe Ile Tyr Thr
 370 375 380
 Leu Trp Ile Val Ile Leu Leu Cys Leu Ile Gln Gln Cys Asp Val Leu
 385 390 395 400
 Phe Lys Gln Leu Glu His Ile Ile Lys Ile Phe Ala Ile Ile Ile Ser
 405 410 415
 Ile Ile Met Met Ile Gly Phe Thr Phe Ile His Ile Ser Ser Val His
 420 425 430
 Arg Ile Asp Phe Ile Lys Glu Gln Ile Thr Gln His His Arg Tyr Gln
 435 440 445
 Lys Ile Thr Leu Glu Arg Leu Pro Phe Glu Arg Tyr Thr His Met Thr
 450 455 460
 Thr Pro Lys Ser Lys Glu Gln Leu Gln Asp Phe Lys His Tyr Tyr Asp
 465 470 475 480
 Leu Pro Lys Asp Ile Thr Phe Lys Val Val Pro Tyr Gly Thr Lys Gln
 485 490 495

<210> 4948
 <211> 174
 <212> PRT
 <213> S.epidermidis

<400> 4948
 Lys Gly Trp Arg Ile Tyr Ala Leu Lys Lys Phe Ser Ala Thr Ile Val
 1 5 10 15
 Val Ile Ile Leu Ile Cys Ala Leu Gly Phe Ser Leu Tyr Ala Ala Ile
 20 25 30
 Asn His His Thr Asn Ser Asn Lys Asn Asp Lys Lys Ile Glu His Asn
 35 40 45
 Arg Lys Asn Lys Gln Asn Asp Thr Ser Asn Gln Asn Arg Asp Thr Asn
 50 55 60
 Gln His Gln Asp Gln Thr Gln Pro Thr Asn Asn Asp Tyr Asn Asn Asp
 65 70 75 80
 Asn Gln Ser Asp Thr Glu Gln Pro Ala Gln Gln Pro Asn Tyr His Gln
 85 90 95
 Tyr Pro Asn Asn Asn Gln Gln Ser Gly Ser Asn Lys Asn Asn Ser Ser
 100 105 110
 Glu Asn Asn Lys Gln Lys Pro Asn Gln Asn Lys Thr Asn Gln Ser Asp
 115 120 125
 Tyr Gln Pro Ser Gln Ser Thr Pro Gln Gln Ser Ser Gln Pro Asn Asn
 130 135 140
 Asn Gln Ser Asp Ser Gln Gln Asn Gly Asn Ser Asn Asn Asn Ser Asn
 145 150 155 160
 Asn Gln Asn His Gly Thr Asn Asp Asn Gln Asn Lys Asn Arg
 165 170

<210> 4949
 <211> 451
 <212> PRT
 <213> S.epidermidis

<400> 4949

Phe	Ile	Arg	Arg	Ile	Asp	Met	Lys	Val	Lys	Ser	Ile	Ser	Arg	Phe	Phe
1				5					10					15	
Ser	Met	Lys	Lys	Val	Thr	Leu	Ser	Phe	Val	Thr	Leu	Phe	Ile	Gly	Val
			20					25					30		
Gly	Thr	Ile	Gly	Ser	Tyr	Asn	Gln	Tyr	Ala	Asp	Ala	Ser	Met	Lys	Thr
		35					40					45			
Gln	Gln	Thr	His	Val	Thr	Lys	Ser	Ser	Pro	Thr	Gln	Lys	Thr	Thr	Ser
		50				55					60				
Asn	Phe	Lys	Arg	Ser	Val	Lys	Asp	Thr	Ser	Val	Lys	Ser	Arg	Ala	Thr
65					70					75					80
Ser	Ile	Lys	Arg	Ala	Thr	Ser	Thr	Lys	Gln	Ala	Ile	Ser	Pro	Lys	Thr
				85					90					95	
Ser	Ser	Thr	Lys	Lys	Thr	Thr	Ile	Ala	Lys	Lys	Ser	Thr	Thr	Val	Asn
			100					105						110	
Lys	Thr	Arg	Thr	Thr	Thr	Lys	Thr	Gln	Pro	Thr	Ile	Arg	Lys	Ser	Ser
		115					120					125			
Thr	Thr	Ser	Thr	Arg	Ser	Lys	Thr	Met	Pro	Thr	Ser	Val	Lys	Arg	Thr
		130				135					140				
Thr	Ser	His	Lys	Ala	Thr	Thr	Val	Ser	Pro	Thr	Ser	Lys	Ala	Lys	Ile
145					150					155					160
Ser	Thr	Lys	Thr	Gln	Gln	Ser	Thr	Lys	Ser	His	Thr	Thr	Ser	Val	Lys
				165					170					175	
Lys	Asn	Thr	Thr	Gln	Leu	Ser	Lys	Thr	Lys	Ser	Pro	Ser	Thr	Ser	Thr
			180					185					190		
Lys	Ser	Lys	Thr	Val	Gln	Ser	Ser	Thr	Thr	Lys	Ala	Gln	Pro	Thr	Leu
		195					200					205			
Ser	Thr	Gln	Val	Ser	Thr	Thr	Lys	Ala	Lys	Gln	Phe	Ser	Thr	Pro	
	210					215				220					
Thr	Thr	Ser	Lys	Thr	Asp	Ser	Ser	Lys	Ser	Leu	Val	Ser	Leu	Ala	Ser
225					230					235					240
Thr	Glu	Arg	Lys	Ile	Asp	Lys	Tyr	Gln	Ser	Met	Thr	Gln	Leu	Glu	Lys
				245					250					255	
Glu	Thr	Thr	Glu	Gly	Val	His	Trp	Arg	Lys	Asp	Thr	Lys	Asn	Thr	Gly
			260					265					270		
Asn	Gln	Val	Leu	Ile	Val	Ala	Pro	His	Gly	Gly	Ser	Ile	Glu	Gln	Ser
		275					280					285			
Thr	Thr	Glu	Leu	Thr	Lys	Thr	Leu	Ala	Asp	Lys	Gly	Asn	Tyr	Asp	Tyr
		290				295					300				
Tyr	Ala	Leu	Glu	Ser	Ile	Arg	Pro	Lys	Asn	Asn	Ser	Glu	Leu	His	Val
305					310					315					320
Thr	Ser	Thr	His	Tyr	Asp	Asp	Pro	Thr	Leu	Asn	Gln	Met	Ile	Lys	Asn
				325					330					335	
Arg	Thr	Ala	Thr	Ile	Ser	Ile	His	Gly	Ala	Ser	Gly	Thr	Glu	Glu	Ile
			340					345					350		
Ile	Tyr	Leu	Gly	Gly	Pro	Arg	Ser	Asp	Leu	Arg	Asn	Ala	Ile	Glu	Lys
		355					360					365			
Gln	Leu	Val	Gly	Cys	Gly	Phe	Thr	Val	Lys	Val	Pro	Pro	Glu	Tyr	Leu
		370				375					380				
Gly	Gly	Gln	Asn	Asn	Lys	Asn	Phe	Ile	Asn	Lys	Glu	Asp	Asn	Asn	Thr
385					390					395					400
Gly	Val	Gln	Leu	Glu	Leu	Thr	Thr	Ala	Leu	Arg	Lys	Ala	Phe	Phe	Lys
				405					410				415		
Asn	Gly	Asp	Thr	Ser	Thr	Lys	Asn	Arg	Thr	Asn	Lys	Glu	Asn	Trp	Thr
			420					425					430		

1955

Pro Thr Met Glu Ala Phe Ile Asn Ala Leu Tyr Glu Gly Ile Asn Gln
 435 440 445
 Thr Tyr Ser
 450

<210> 4950
 <211> 162
 <212> PRT
 <213> S.epidermidis

<400> 4950
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 1 5 10 15
 Glu Leu Leu Glu Asp Asn Gln Lys Lys Leu Lys Lys Leu Phe Lys Tyr
 20 25 30
 Asp His Lys Lys Ala Leu Ala Phe Thr Pro Glu Asp Arg Glu Lys Val
 35 40 45
 Lys Asp Lys Phe Gly Val Tyr Val Ile Phe Asp Glu Lys Lys Pro Val
 50 55 60
 Phe Val Gly Gln Thr Gly Gly Tyr Ser Ser Thr His Gln Pro Ile Asn
 65 70 75 80
 Ser Asp Leu Tyr Thr Lys Leu Gly Gln Tyr Asn Ser Arg Ser Glu Thr
 85 90 95
 Gly Thr Thr Lys Phe Arg Lys Ala Tyr Ala Gln Asn Lys Asp Leu Asn
 100 105 110
 Pro Asn His Leu Lys Asp Ile Thr Ala Asp Lys Tyr Gly Phe Thr Phe
 115 120 125
 Gln Tyr Ile Lys Val Lys Asp Glu Pro Ala Phe Ile Asn Val Leu Glu
 130 135 140
 Ile Leu Ala Leu Glu Tyr Ala Lys Asn Lys Gly Tyr Glu Leu Tyr Asn
 145 150 155 160
 Phe Gln

<210> 4951
 <211> 2137
 <212> PRT
 <213> S.epidermidis

<400> 4951
 Glu Asn Tyr Gly Glu Phe Ile Met Thr Lys Lys Glu Lys Asp Tyr Lys
 1 5 10 15
 Lys Ser Leu Glu Gln Gln Lys Thr Arg Val Lys Ile Tyr Lys Ser Gly
 20 25 30
 Lys Ser Trp Val Lys Ala Ser Ile Asn Glu Ile Glu Leu Leu Lys Thr
 35 40 45
 Met Gly Leu Pro Phe Leu Ser Lys Asn Glu Ile Gln Glu Asn Val Thr
 50 55 60
 Glu Lys Thr Lys Gly His Lys Leu Lys Lys Ser Ala Ala Lys Thr Thr
 65 70 75 80
 Ala Leu Val Gly Gly Ala Phe Thr Phe Asn Met Leu Asn Asn His Gln
 85 90 95
 Ala Phe Ala Ala Ser Glu Thr Pro Ile Thr Ser Glu Ile Ser Ser Asn
 100 105 110
 Ser Glu Thr Val Ala Asn Gln Asn Ser Thr Thr Ile Lys Asn Ser Gln
 115 120 125

Sequence = 69657760

Lys	Glu	Thr	Val	Asn	Ser	Thr	Ser	Leu	Glu	Ser	Asn	His	Ser	Asn	Ser	130	135	140
Thr	Asn	Lys	Gln	Met	Ser	Ser	Glu	Val	Thr	Asn	Thr	Asp	Gln	Ser	Ser	145	150	155
Glu	Lys	Ala	Gly	Ile	Ser	Gln	Gln	Ser	Ser	Glu	Thr	Ser	Asn	Gln	Ser	165	170	175
Ser	Glu	Leu	Asn	Thr	Tyr	Ala	Ser	Thr	Asp	His	Val	Glu	Ser	Thr	Thr	180	185	190
Thr	Asn	Asn	Asp	Asn	Thr	Ala	Gln	Gln	Asp	Gln	Asn	Lys	Ser	Ser	Asn	195	200	205
Val	Thr	Ser	Lys	Ser	Thr	Gln	Ser	Asn	Thr	Ser	Ser	Ser	Glu	Lys	Asn	210	215	220
Ile	Ser	Ser	Asn	Leu	Thr	Gln	Ser	Ile	Glu	Thr	Lys	Ala	Thr	Asp	Ser	225	230	235
Leu	Ala	Thr	Ser	Glu	Ala	Arg	Thr	Ser	Thr	Asn	Gln	Ile	Ser	Asn	Leu	245	250	255
Thr	Ser	Thr	Ser	Thr	Ser	Asn	Gln	Ser	Ser	Pro	Thr	Ser	Phe	Ala	Asn	260	265	270
Leu	Arg	Thr	Phe	Ser	Arg	Phe	Thr	Val	Leu	Asn	Thr	Met	Ala	Ala	Pro	275	280	285
Thr	Thr	Thr	Ser	Thr	Thr	Thr	Thr	Ser	Ser	Leu	Thr	Ser	Asn	Ser	Val	290	295	300
Val	Val	Asn	Lys	Asp	Asn	Phe	Asn	Glu	His	Met	Asn	Leu	Ser	Gly	Ser	305	310	315
Ala	Thr	Tyr	Asp	Pro	Lys	Thr	Gly	Ile	Ala	Thr	Leu	Thr	Pro	Asp	Ala	325	330	335
Tyr	Ser	Gln	Lys	Gly	Ala	Ile	Ser	Leu	Asn	Thr	Arg	Leu	Asp	Ser	Asn	340	345	350
Arg	Ser	Phe	Arg	Phe	Thr	Gly	Lys	Val	Asn	Leu	Gly	Asn	Arg	Tyr	Glu	355	360	365
Gly	Tyr	Ser	Pro	Asp	Gly	Val	Thr	Gly	Gly	Asp	Gly	Ile	Gly	Phe	Ala	370	375	380
Phe	Ser	Pro	Gly	Pro	Leu	Gly	Gln	Ile	Gly	Lys	Glu	Gly	Ala	Ala	Val	385	390	395
Gly	Ile	Gly	Gly	Leu	Asn	Asn	Ala	Phe	Gly	Phe	Lys	Leu	Asp	Thr	Tyr	405	410	415
His	Asn	Thr	Ser	Thr	Pro	Lys	Ser	Asp	Ala	Lys	Ala	Lys	Ala	Asp	Pro	420	425	430
Arg	Asn	Val	Gly	Gly	Gly	Gly	Ala	Phe	Gly	Ala	Phe	Val	Ser	Thr	Asp	435	440	445
Arg	Asn	Gly	Met	Ala	Thr	Thr	Glu	Ala	Ser	Ser	Ala	Ala	Lys	Leu	Asn	450	455	460
Val	Gln	Pro	Thr	Asp	Asn	Ser	Phe	Gln	Asp	Phe	Val	Ile	Asp	Tyr	Asn	465	470	475
Gly	Asp	Thr	Lys	Val	Met	Thr	Val	Thr	Tyr	Ala	Gly	Gln	Thr	Phe	Thr	485	490	495
Arg	Asn	Leu	Thr	Asp	Trp	Ile	Lys	Asn	Ser	Gly	Gly	Thr	Thr	Phe	Ser	500	505	510
Leu	Ser	Met	Thr	Ala	Ser	Thr	Gly	Gly	Ala	Lys	Asn	Leu	Gln	Gln	Val	515	520	525
Gln	Phe	Gly	Thr	Phe	Glu	Tyr	Thr	Glu	Ser	Ala	Val	Ala	Lys	Val	Arg	530	535	540
Tyr	Val	Asp	Ala	Asn	Thr	Gly	Lys	Asp	Ile	Ile	Pro	Pro	Lys	Thr	Ile	545	550	555
Ala	Gly	Glu	Val	Asp	Ala	Thr	Val	Asn	Ile	Asp	Lys	Gln	Leu	Asn	Asn	565	570	575

Leu	Lys	Asn	Ser	Gly	Tyr	Ser	Tyr	Val	Ser	Thr	Asp	Ala	Leu	Gln	Asn		
			580					585					590				
Ser	Asn	Tyr	Ser	Glu	Thr	Ser	Gly	Thr	Pro	Thr	Leu	Lys	Leu	Thr	Asn		
		595					600					605					
Ser	Ser	Gln	Thr	Val	Ile	Tyr	Lys	Phe	Lys	Asp	Val	Gln	Gly	Pro	Gln		
	610					615					620						
Ile	Ser	Val	Asp	Ser	Gln	Thr	Arg	Glu	Val	Gly	Lys	Thr	Ile	Asn	Pro		
625					630					635					640		
Ile	Thr	Ile	Thr	Thr	Thr	Asp	Asn	Ser	Lys	Asp	Val	Leu	Thr	Thr	Thr		
				645					650					655			
Val	Thr	Gly	Leu	Pro	Ser	Gly	Leu	Ser	Phe	Asp	Gln	Thr	Thr	Asn	Thr		
			660					665					670				
Ile	Thr	Gly	Thr	Pro	Ser	Glu	Val	Gly	Thr	Thr	Thr	Val	Thr	Val	Asn		
	675						680					685					
Thr	Thr	Asp	Ala	Thr	Gly	Asn	Val	Thr	Ser	Lys	Gln	Phe	Thr	Ile	Thr		
	690					695					700						
Ile	Gln	Asp	Thr	Ile	Ser	Pro	Val	Val	Asn	Val	Thr	Pro	Ser	Gln	Ala		
705					710					715					720		
Ser	Glu	Val	Phe	Thr	Pro	Ile	Asn	Pro	Ile	Thr	Ile	Thr	Ala	Thr	Asp		
				725					730					735			
Asn	Ser	Gly	Lys	Val	Val	Thr	His	Thr	Val	Thr	Gly	Leu	Pro	Gln	Gly		
		740						745					750				
Leu	Lys	Phe	Asp	Ala	Ser	Thr	Asn	Ser	Ile	Val	Gly	Thr	Pro	Thr	Gln		
		755					760					765					
Ile	Gly	Thr	Asn	Thr	Ile	Thr	Ile	Glu	Ser	Thr	Asp	Ala	Ser	Gly	Asn		
	770					775					780						
Lys	Thr	Thr	Thr	Lys	Ile	Asn	Tyr	Glu	Val	Thr	Arg	Asn	Ser	Ala	Ser		
785					790					795					800		
Asp	Ser	Thr	Ser	Thr	Ser	Ile	Val	Asn	Ser	Val	Ser	Thr	Ser	Ile	Ser		
				805					810					815			
Asn	Ser	Thr	Ser	Leu	Ser	Asp	Ser	Val	Lys	Ala	Ser	Gln	Ser	Leu	Ser		
			820					825					830				
Thr	Ser	Lys	Ser	Leu	Ser	Glu	Ser	Leu	Ser	Ala	Ser	Thr	Ser	Asn	Ser		
		835					840					845					
Thr	Ser	Ile	Gln	Ala	Ser	Glu	Ser	Ala	Ser	Thr	Ser	Lys	Gln	Leu	Ser		
	850					855					860						
Glu	Ser	Ala	Ser	Thr	Ser	Thr	Ser	Asp	Ser	Ala	Ser	Glu	Ser	Ala	Arg		
865					870					875					880		
Lys	Ser	Glu	Ser	Thr	Ser	Lys	Ser	Thr	Ser	Leu	Ser	Glu	Ser	Thr	Ser		
				885					890					895			
Thr	Ser	Val	Ser	Asp	Ser	Ala	Ser	Val	Ser	Thr	Ser	Glu	Ser	Ala	Ser		
			900					905					910				
Thr	Ser	Thr	Ser	Val	Ser	Gly	Ser	Thr	Ser	Thr	Ser	Ile	Ser	Asp	Ser		
		915					920					925					
Thr	Ser	Thr	Ser	Thr	Ser	Asp	Ser	Ala	Ser	Ile	Lys	Ala	Ser	Glu	Ser		
	930					935					940						
Ala	Ser	Thr	Ser	Lys	Leu	Leu	Ser	Glu	Ser	Val	Ser	Thr	Ser	Thr	Ser		
945					950					955					960		
Asp	Ser	Ala	Ser	Thr	Ser	Thr	Ser	Val	Ser	Asp	Ser	Asn	Ser	Ala	Ser		
				965					970					975			
Thr	Ser	Leu	Ser	Lys	Ser	Thr	Ser	Thr	Ser	Val	Ser	Asp	Ser	Thr	Ser		
			980					985					990				
Thr	Ser	Thr	Ser	Asp	Ser	Ala	Ser	Thr	Ser	Thr	Ser	Glu	Ser	Glu	Ser		
		995					1000					1005					
Asp	Ser	Ala	Ser	Thr	Ser	Leu	Ser	Glu	Ser	Thr	Ser	Thr	Ser	Val	Ser		
	1010					1015						1020					

Asp	Ser	Thr	Ser	Thr	Ser	Thr	Ser	Asp	Ser	Ala	Ser	Met	Ser	Ala	Ser	1025	1030	1035	1040
Glu	Ser	Glu	Ser	Asn	Ser	Lys	Ser	Thr	Ser	Leu	Ser	Glu	Ser	Thr	Ser	1045	1050	1055	
Thr	Ser	Leu	Ser	Gly	Ser	Thr	Ser	Ala	Ser	Thr	Ser	Asp	Ser	Ala	Ser	1060	1065	1070	
Thr	Ser	Thr	Ser	Glu	Ser	Glu	Ser	Asp	Ser	Thr	Ser	Thr	Ser	Leu	Ser	1075	1080	1085	
Glu	Ser	Thr	Ser	Thr	Ser	Leu	Ser	Gly	Ser	Thr	Ser	Ala	Ser	Thr	Ser	1090	1095	1100	
Asp	Ser	Ala	Ser	Thr	Ser	Thr	Ser	Glu	Ser	Asp	Ser	Thr	Ser	Glu	Ser	1105	1110	1115	1120
Thr	Ser	Leu	Ser	Glu	Ser	Leu	Ser	Thr	Ser	Val	Ser	Asp	Ser	Thr	Ser	1125	1130	1135	
Ala	Ser	Thr	Ser	Glu	Ser	Ala	Ser	Thr	Ser	Thr	Ser	Glu	Ser	Glu	Ser	1140	1145	1150	
Asn	Ser	Ala	Ser	Thr	Ser	Leu	Ser	Gly	Ser	Leu	Ser	Thr	Ser	Ile	Ser	1155	1160	1165	
Asp	Ser	Thr	Ser	Thr	Ser	Thr	Ser	Asp	Ser	Ala	Ser	Thr	Ser	Thr	Ser	1170	1175	1180	
Glu	Ser	Glu	Ser	Asp	Ser	Thr	Ser	Thr	Ser	Leu	Ser	Glu	Ser	Thr	Ser	1185	1190	1195	1200
Thr	Ser	Leu	Ser	Asp	Ser	Thr	Ser	Thr	Ser	Thr	Ser	Glu	Ser	Ala	Ser	1205	1210	1215	
Thr	Ser	Thr	Ser	Glu	Ser	Asp	Ser	Thr	Ser	Glu	Ser	Thr	Ser	Leu	Ser	1220	1225	1230	
Glu	Ser	Thr	Ser	Thr	Ser	Val	Ser	Asp	Ser	Thr	Ser	Ala	Ser	Thr	Ser	1235	1240	1245	
Asp	Ser	Ala	Ser	Thr	Ser	Thr	Ser	Val	Ser	Asp	Ser	Glu	Ser	Ala	Ser	1250	1255	1260	
Thr	Ser	Ile	Ser	Glu	Ser	Leu	Ser	Thr	Ser	Val	Ser	Asp	Ser	Thr	Ser	1265	1270	1275	1280
Thr	Ser	Thr	Ser	Asp	Ser	Ala	Ser	Thr	Ser	Thr	Ser	Glu	Ser	Asp	Ser	1285	1290	1295	
Thr	Ser	Glu	Ser	Thr	Ser	Leu	Ser	Glu	Ser	Ile	Ser	Thr	Ser	Val	Ser	1300	1305	1310	
Asp	Ser	Thr	Ser	Ala	Ser	Thr	Ser	Asp	Ser	Ala	Ser	Thr	Ser	Thr	Ser	1315	1320	1325	
Glu	Ser	Glu	Ser	Asp	Ser	Ala	Ser	Thr	Ser	Leu	Ser	Gly	Ser	Thr	Ser	1330	1335	1340	
Thr	Ser	Leu	Ser	Asp	Ser	Thr	Ser	Thr	Ser	Thr	Ser	Asp	Ser	Ala	Ser	1345	1350	1355	1360
Thr	Ser	Thr	Ser	Glu	Ser	Asp	Ser	Glu	Arg	Ala	Ser	Thr	Ser	Leu	Ser	1365	1370	1375	
Gly	Ser	Thr	Ser	Thr	Ser	Leu	Ser	Asp	Ser	Thr	Ser	Thr	Ser	Thr	Ser	1380	1385	1390	
Asp	Ser	Ala	Ser	Thr	Ser	Thr	Ser	Val	Ser	Asp	Ser	Asn	Ser	Ala	Ser	1395	1400	1405	
Thr	Ser	Leu	Ser	Gly	Ser	Leu	Ser	Thr	Ser	Val	Ser	Asp	Ser	Thr	Ser	1410	1415	1420	
Thr	Ser	Thr	Ser	Asp	Ser	Ala	Ser	Ala	Ser	Thr	Ser	Glu	Ser	Asp	Ser	1425	1430	1435	1440
Glu	Arg	Ala	Ser	Thr	Ser	Leu	Ser	Gly	Ser	Thr	Ser	Thr	Ser	Ile	Ser	1445	1450	1455	
Asp	Ser	Thr	Ser	Thr	Ser	Thr	Ser	Asp	Ser	Ala	Ser	Thr	Ser	Thr	Ser	1460	1465	1470	

Val	Ser	Glu	Ser	Asn	Ser	Thr	Ser	Thr	Ser	Ile	Ser	Glu	Ser	Leu	Ser	1475	1480	1485
Thr	Ser	Val	Ser	Asp	Ser	Thr	Ser	Thr	Ser	Thr	Ser	Asp	Ser	Ala	Ser	1490	1495	1500
Thr	Ser	Thr	Ser	Val	Ser	Asp	Ser	Asp	Ser	Ala	Ser	Thr	Ser	Ser	Ser	1505	1510	1515
Glu	Ser	Val	Ser	Thr	Ser	Asp	Ser	Glu	Ser	Thr	Ser	Thr	Ser	Thr	Ser	1525	1530	1535
Asp	Ser	Ala	Ser	Thr	Ser	Thr	Ser	Val	Ser	Glu	Ser	Asn	Ser	Thr	Ser	1540	1545	1550
Thr	Ser	Leu	Ser	Gly	Ser	Thr	Ser	Thr	Ser	Val	Ser	Asp	Ser	Thr	Ser	1555	1560	1565
Thr	Ser	Thr	Ser	Asp	Ser	Ala	Ser	Ala	Ser	Thr	Ser	Glu	Ser	Asp	Ser	1570	1575	1580
Asp	Ser	Ala	Ser	Thr	Ser	Ser	Ser	Glu	Ser	Val	Ser	Thr	Ser	Val	Ser	1585	1590	1595
Asp	Ser	Thr	Ser	Ala	Ser	Thr	Ser	Glu	Ser	Ala	Ser	Thr	Ser	Thr	Ser	1605	1610	1615
Val	Ser	Asp	Ser	Asn	Ser	Ala	Ser	Thr	Ser	Leu	Ser	Glu	Ser	Thr	Ser	1620	1625	1630
Thr	Ser	Leu	Ser	Asp	Ser	Thr	Ser	Met	Ser	Thr	Ser	Asp	Ser	Ala	Ser	1635	1640	1645
Thr	Ser	Thr	Ser	Glu	Ser	Asp	Ser	Asp	Ser	Ala	Ser	Thr	Ser	Leu	Ser	1650	1655	1660
Asp	Ser	Thr	Ser	Thr	Ser	Val	Ser	Glu	Ser	Thr	Ser	Thr	Ser	Thr	Ser	1665	1670	1675
Thr	Ser	Val	Ser	Ala	Ser	Asn	Ser	Thr	Ser	Thr	Ser	Leu	Ser	Asp	Ser	1685	1690	1695
Arg	Ser	Thr	Ser	Leu	Ser	Asp	Ser	Thr	Ser	Thr	Ser	Thr	Ser	Glu	Ser	1700	1705	1710
Gly	Ser	Thr	Ser	Thr	Ser	Glu	Ser	Asp	Ser	Asp	Ser	Ala	Ser	Thr	Ser	1715	1720	1725
Leu	Ser	Glu	Ser	Thr	Ser	Thr	Ser	Ile	Ser	Asp	Ser	Thr	Ser	Thr	Ser	1730	1735	1740
Thr	Ser	Asp	Ser	Ala	Ser	Thr	Ser	Met	Ser	Val	Ser	Asp	Ser	Asn	Arg	1745	1750	1755
Ala	Ser	Thr	Ser	Leu	Ser	Asp	Ser	Thr	Ser	Thr	Ser	Val	Ser	Asp	Ser	1765	1770	1775
Thr	Ser	Ala	Ser	Thr	Ser	Glu	Ser	Ala	Ser	Thr	Ser	Thr	Arg	Glu	Ser	1780	1785	1790
Glu	Ser	Thr	Ser	Ala	Ser	Thr	Ser	Leu	Ser	Glu	Ser	Thr	Ser	Thr	Ser	1795	1800	1805
Val	Ser	Asp	Ser	Thr	Ser	Thr	Ser	Thr	Ser	Asp	Ser	Ala	Ser	Thr	Ser	1810	1815	1820
Thr	Ser	Glu	Ser	Asp	Ser	Asn	Ser	Glu	Ser	Thr	Ser	Leu	Ser	Glu	Ser	1825	1830	1835
Thr	Ser	Thr	Ser	Val	Ser	Asp	Ser	Thr	Ser	Ala	Ser	Thr	Ser	Ala	Ser	1845	1850	1855
Ala	Ser	Thr	Ser	Thr	Ser	Val	Ser	Asp	Ser	Asn	Ser	Ala	Ser	Thr	Ser	1860	1865	1870
Leu	Ser	Gly	Ser	Thr	Ser	Thr	Ser	Val	Ser	Asp	Ser	Thr	Ser	Thr	Ser	1875	1880	1885
Thr	Ser	Ala	Ser	Ala	Ser	Thr	Ser	Thr	Ser	Glu	Ser	Asp	Ser	Asp	Ser	1890	1895	1900
Ala	Ser	Thr	Ser	Leu	Ser	Gly	Ser	Thr	Ser	Thr	Ser	Ile	Ser	Asp	Ser	1905	1910	1915
																		1920

1960

Thr	Ser	Thr	Ser	Thr	Ser	Asp	Ser	Ala	Ser	Thr	Ser	Thr	Ser	Glu	Ser
				1925					1930					1935	
Ala	Ser	Thr	Ser	Thr	Ser	Val	Ser	Glu	Ser	Asp	Ser	Glu	Ser	Thr	Ser
			1940					1945					1950		
Val	Ser	Glu	Ser	Ser	Ser	Thr	Ser	Val	Ser	Asp	Ser	Thr	Ser	Thr	Ser
		1955					1960					1965			
Thr	Ser	Glu	Ser	Ala	Ser	Thr	Ser	Thr	Ser	Glu	Ser	Glu	Ser	Thr	Ser
		1970				1975					1980				
Glu	Ser	Thr	Ser	Val	Ser	Glu	Ser	Ser	Ser	Thr	Ser	Ile	Ser	Asp	Ser
1985					1990					1995				2000	
Ser	Ser	Thr	Ser	Thr	Ser	Met	Ser	Thr	Ser	Glu	Thr	Phe	Thr	Ser	Gln
				2005					2010					2015	
Ser	Pro	Ile	Asn	Ser	Glu	Ser	Gln	Phe	Ile	Gly	Asp	Ser	Leu	Ser	Glu
			2020					2025					2030		
Asp	Thr	Ile	Val	Thr	Gln	Ser	Lys	Asn	Thr	Asn	Met	Leu	Asn	Lys	Thr
		2035					2040					2045			
Gly	Lys	Asp	Tyr	Asp	Leu	Gln	Glu	Gln	Arg	Gly	Tyr	Thr	Asp	Ser	Glu
	2050					2055					2060				
Gln	His	Asn	Glu	Thr	Gln	Ser	Asn	Gln	Ala	Asp	Asn	His	Ser	Asn	Asn
2065					2070					2075				2080	
Leu	Asp	Leu	Leu	His	Gln	Asn	Arg	Leu	Gln	Asp	Lys	Val	Val	Lys	Gln
				2085					2090					2095	
Pro	Thr	Lys	Gly	Glu	Asp	Gly	Val	Val	Ser	Asn	Gly	Phe	Ile	Val	Ala
			2100				2105						2110		
Val	Ala	Ile	Val	Leu	Ala	Ile	Phe	Gly	Leu	Ala	Lys	Lys	Ser	Arg	Lys
		2115				2120					2125				
Asp	Asp	Asp	Asp	Gln	Asp	Gly	Ser	Lys							
	2130					2135									

<210> 4952

<211> 378

<212> PRT

<213> S.epidermidis

<400> 4952

Glu	Arg	Ser	Gly	Leu	Leu	Met	His	Asp	Val	Leu	Ile	Ile	Gly	Ser	Gly
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Val	Ile	Gly	Met	Ser	Ile	Ala	Arg	His	Leu	Ser	Ala	Thr	His	Leu	Asp
			20					25					30		
Val	Ala	Val	Ile	Asp	Arg	Asp	Val	Pro	Gly	Lys	His	Ala	Ser	Tyr	Lys
		35					40					45			
Ala	Gly	Gly	Met	Leu	Gly	Ala	Gln	Asn	Glu	Phe	Thr	Glu	Asp	Ser	Asp
	50					55					60				
Leu	Phe	Gln	Leu	Ala	Ile	Glu	Ser	Arg	Ala	Met	Phe	Pro	Gln	Leu	Ser
65					70				75					80	
Lys	Ser	Leu	Leu	Asp	Glu	Thr	Gly	Ile	Asp	Ile	Gln	Phe	Lys	Asn	Ser
			85						90					95	
Gly	Leu	Ile	Lys	Ile	Ala	Asn	Glu	His	Asp	Asp	Ile	Ser	Ser	Ile	Lys
			100					105					110		
Arg	Gln	Tyr	Gln	Phe	Leu	Asn	Ser	Gln	Asp	Arg	Ser	Val	Lys	Gln	Leu
		115					120					125			
Ser	Asp	Asp	Asp	Leu	Leu	Gln	Leu	Thr	His	Gly	Glu	Val	Lys	Pro	Ser
	130					135					140				
Tyr	Ala	Ala	Ile	His	Ile	Pro	His	Asp	Gly	Gln	Ile	Asn	Ala	His	His
145					150					155				160	
Tyr	Thr	Leu	Ala	Leu	Leu	Glu	Ser	Met	Lys	Leu	Arg	Asp	Ile	Lys	Arg

1961

				165					170					175			
Tyr	Glu	Ser	Thr	Glu	Val	Thr	Ser	Ile	Glu	Arg	His	Asn	Gly	Tyr	Tyr		
			180					185					190				
Ser	Val	Lys	Thr	Asp	Gln	Ser	Ser	Thr	Ile	Glu	Ala	His	Lys	Ile	Ile		
		195					200					205					
Val	Ala	Gly	Gly	Ala	Trp	Ser	Ser	Gln	Leu	Leu	Thr	Gln	Tyr	His	Leu		
	210					215					220						
Gln	Arg	Gln	Val	Ile	Gly	Val	Lys	Gly	Glu	Val	Ile	Leu	Leu	Glu	Asn		
225				230					235					240			
Asn	Asp	Leu	Ser	Leu	Thr	Glu	Thr	Leu	Phe	Met	Thr	Asn	Gly	Cys	Tyr		
			245					250					255				
Ile	Val	Pro	Lys	Gln	Pro	Asn	Arg	Phe	Leu	Ile	Gly	Ala	Thr	Ser	Glu		
		260					265					270					
Phe	Asn	Asn	Tyr	Ser	Val	Gly	Thr	Thr	Asp	Glu	Gly	Met	Asp	Trp	Leu		
	275						280					285					
Leu	Arg	His	Ala	Tyr	His	Arg	Val	Pro	Gln	Leu	Lys	Asp	Ser	His	Ile		
	290				295				300								
Leu	Lys	Lys	Trp	Ser	Gly	Val	Arg	Pro	Tyr	Thr	Glu	Lys	Glu	Met	Pro		
305				310					315					320			
Val	Met	Asp	Gln	Ile	Asp	Asp	Gly	Leu	Tyr	Val	Ile	Ser	Gly	His	Tyr		
			325				330						335				
Arg	Asn	Gly	Ile	Leu	Leu	Ser	Pro	Ile	Ile	Gly	Arg	Asp	Ile	Ala	Asn		
		340					345						350				
Trp	Leu	Leu	Ser	Gly	Ile	Lys	Pro	Ser	Arg	Tyr	Ser	Ser	Phe	Thr	Val		
	355					360						365					
Thr	Arg	Arg	Asn	Asn	His	Glu	Val	Tyr	His								
	370					375											

<210> 4953

<211> 276

<212> PRT

<213> S.epidermidis

<400> 4953

Gly	Arg	Gly	Gly	Leu	Ser	Met	Asn	Asn	Thr	Ile	Ile	Ser	Met	Lys	Glu		
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Lys	Glu	Leu	Arg	Phe	Leu	Lys	Phe	Phe	His	Gln	Gln	Lys	Tyr	Asn	Val		
		20					25					30					
Val	Asp	Phe	Asn	Leu	Ile	Glu	Glu	Leu	Asp	Trp	Gln	Arg	Leu	Thr	His		
	35					40					45						
Glu	Asp	Leu	Gln	Gln	Met	Asp	Glu	Arg	Ser	Phe	Trp	Gln	Gln	Asn	Lys		
	50				55				60								
Ser	Ile	Tyr	Ala	Leu	Arg	Asn	Asp	Phe	Thr	Asp	Gln	Leu	Phe	Arg	Tyr		
65				70					75					80			
Tyr	Ser	Asn	Tyr	Pro	Thr	His	Phe	Lys	Lys	Val	Ala	Tyr	Ala	Gly	Asp		
		85						90					95				
Ile	Ile	Arg	Asp	Asn	Arg	Val	Ile	Lys	Gln	Val	Gly	Ile	Glu	Asn	Tyr		
		100					105					110					
Glu	Pro	Gln	Phe	Asp	Asn	Ile	Thr	Gln	Asn	Phe	Leu	Asp	Phe	Gln	Tyr		
	115					120					125						
Phe	Ile	Gln	Asn	Val	Leu	His	Asp	Asp	Ile	Gln	Phe	Ile	Ile	Leu	Gly		
	130				135					140							
His	Tyr	Gln	Leu	Ile	Asp	Ala	Leu	Leu	Glu	Lys	Asn	His	Gln	Thr	Arg		
145				150					155					160			
Glu	Val	Met	Glu	Met	Ile	Glu	Glu	Arg	Asn	Leu	Ser	Gly	Leu	Ile	Gln		
			165					170					175				

Thr Leu Thr Phe Asn His Pro Ile Ile Gln Ile Leu Lys Glu Asn Thr
 180 185 190
 Leu Asn Gln Leu Lys Ile Leu Ser His Tyr Leu Pro Glu Arg His Pro
 195 200 205
 Ala Met Val Ala Ile Gln Ser Trp Ser Gln Trp Phe Thr Asp His Gly
 210 215 220
 Ile Thr Glu Ile His Leu Asp Val Thr Ala Gln Ala Pro Arg Ser Tyr
 225 230 235 240
 Tyr Lys Gly Ile Phe Ile Lys Cys His Leu Lys Asn Thr Ala His Ser
 245 250 255
 Val Leu Thr Gly Gly Tyr Tyr His Gly Ser Leu Glu Gly Phe Gly Leu
 260 265 270
 Gly Leu Thr Leu
 275

<210> 4954

<211> 53

<212> PRT

<213> S.epidermidis

<400> 4954

Lys Tyr Ile Leu Asp Tyr Val Tyr Ile Asp Tyr Tyr Cys Cys Ser Thr
 1 5 10 15
 Ala Gln Met Thr Asn Leu Pro Lys Val Lys Ile Ile Leu Leu Leu Phe
 20 25 30
 Tyr Val Ser Gln His Asn Ile Tyr Arg Met Thr Gln Asn Ile Cys Glu
 35 40 45
 Ala Leu Leu Phe Glu
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<210> 4955

<211> 51

<212> PRT

<213> S.epidermidis

<400> 4955

Asn Asn Ser Gly Asn Ser Leu Ile Asn Leu Ile Lys Glu Leu Pro Leu
 1 5 10 15
 Leu Leu Cys Tyr Leu Ser Met Lys Asn Lys Gly Ile Gln Phe Ile Ser
 20 25 30
 Leu Asp Glu Tyr Asp Asn Asp Tyr Phe Leu Tyr Leu Leu Ser Asn Ala
 35 40 45
 Gly Gly Thr
 50

<210> 4956

<211> 527

<212> PRT

<213> S.epidermidis

<400> 4956

Ile Leu Val Gly Arg Arg Phe Trp Asn Met Lys Arg Phe Ile Pro Ala
 1 5 10 15
 Trp Tyr Ser Arg Asn Arg Trp Trp Glu Ser Thr Ser Arg Pro Phe Tyr
 20 25 30
 Leu Lys Lys Gln Tyr Thr Asp Phe Asp Asp Met Ile Ser Leu Met Thr

	35		40		45												
Met	His	Ser	Ser	Asn	Asn	Val	Asp	Tyr	Gln	Leu	Ile	Val	Leu	Asn	Phe		
	50					55					60						
Ser	Pro	Tyr	Leu	Arg	Thr	Phe	Leu	His	Arg	Tyr	Asp	Leu	Tyr	Glu	Ser		
65					70					75				80			
His	Tyr	Trp	Ser	Val	Phe	Asp	Glu	Ile	Gln	Gly	Val	Gly	His	Gln	Thr		
				85					90					95			
Pro	Gln	Ala	Ile	Asp	Tyr	Arg	Asp	Leu	Ser	Trp	Pro	Glu	Gly	Thr	Glu		
			100					105					110				
Phe	Ile	Phe	Thr	Pro	Phe	Gln	Ile	Gln	Ala	Ile	Thr	Gly	Asp	Asn	Thr		
	115						120					125					
Phe	Ser	Lys	Ile	His	Phe	Ser	Gln	Glu	Gly	Tyr	Leu	Met	Trp	Val	Glu		
	130					135					140						
Asp	Tyr	Lys	Tyr	Ser	Thr	Ile	Gln	Arg	Arg	Phe	Val	Phe	Asp	Asp	Arg		
145					150					155					160		
Gly	Phe	Ile	Ser	Ala	Val	Arg	Thr	Tyr	Thr	Pro	Asp	Gly	Asp	Asn	Asn		
				165					170					175			
Lys	Lys	His	Tyr	Phe	Ser	Lys	Asp	Gly	Glu	Glu	Ile	Phe	Val	Glu	Asp		
			180					185					190				
Leu	Asn	Val	Asn	Thr	Val	Thr	Ile	Asn	Lys	Asn	Phe	Gln	Ser	Lys	Phe		
	195						200					205					
Lys	Arg	Val	Thr	Tyr	Ser	Ser	Met	Ala	Glu	Leu	Ile	Glu	Glu	Lys	Phe		
	210					215					220						
Gln	Ser	Tyr	Val	Glu	Arg	Glu	Leu	Asn	Glu	Asp	Asp	Ser	Val	Ile	Val		
225					230					235					240		
Ala	Ser	Asp	Glu	Arg	His	Asn	Ser	Met	Met	Ala	Arg	Thr	Ile	Asp	Ala		
				245					250					255			
Ser	Ser	Leu	Cys	Phe	Ser	Ile	Phe	Thr	Glu	Arg	Asn	Lys	Val	Val	Thr		
		260						265					270				
Gln	Asp	Leu	Tyr	Asp	Ser	Ile	Ser	Arg	Ala	Tyr	Tyr	Cys	Leu	Val	Asp		
	275						280					285					
Thr	Gln	Ala	Asn	Gln	Asn	Met	Ile	Glu	His	Tyr	Ala	Gly	Leu	Asn	Met		
	290					295					300						
Asn	Asp	Ile	Asn	Leu	Leu	Arg	Val	Thr	Pro	Phe	Asp	Ala	Lys	Ser	Leu		
305					310					315					320		
Pro	Asn	Gln	Ser	Ser	Gln	Leu	Tyr	Asp	Thr	Tyr	Ile	Gly	Leu	Trp	Ile		
				325					330					335			
Asp	Gly	Leu	Asp	Glu	Ile	Glu	Ile	Arg	Glu	Ile	Val	Asn	Ser	Leu	Phe		
		340						345				350					
Gln	Tyr	Ile	Gln	His	Lys	Asp	Gly	Tyr	Lys	Leu	Lys	Ile	Leu	Thr	Lys		
	355						360					365					
Ser	Arg	Asp	Asn	Leu	Thr	Glu	Asn	Leu	Ile	Asp	Glu	Val	Ala	His	Leu		
	370					375					380						
Asn	Asp	Leu	Tyr	His	Gln	Glu	Lys	Lys	Glu	Ile	Ser	Asp	Val	Ile	Glu		
385					390					395					400		
Asp	Val	Ile	Gln	Asn	Lys	Lys	Glu	Thr	Ile	Ile	Asp	Ile	Glu	Thr	Val		
				405					410					415			
Pro	Phe	Glu	Glu	Asp	Leu	Val	Ser	Val	Ile	Ser	Lys	Leu	Arg	Val	Val		
			420					425					430				
Val	Asp	Leu	Ser	Leu	Glu	Pro	Lys	Leu	Phe	Leu	Gln	Ile	Cys	Cys	Ile		
	435						440					445					
Gly	Ala	Gly	Ile	Pro	Gln	Ile	Asn	Lys	Lys	Arg	Thr	Asp	Tyr	Val	Lys		
	450					455					460						
His	Met	His	Asn	Gly	Tyr	Ile	Ile	Asp	Asp	Ile	Ser	Gln	Thr	Val	Glu		
465					470					475					480		
Ser	Leu	Asp	Tyr	Phe	Leu	Ala	His	Leu	Lys	Asn	Trp	Asn	Tyr	Ser	Tyr		

				485					490					495			
Ala	Tyr	Ser	Met	Arg	Leu	Thr	Asp	Asp	Phe	Ser	Ser	Ile	Asn	Ile	Ile		
			500					505					510				
His	Gln	Ile	Asn	Gln	Leu	Phe	Lys	Gly	Asp	Val	Ser	Ser	Gly	Thr			
		515					520					525					

<210> 4957

<211> 418

<212> PRT

<213> S.epidermidis

<400> 4957

Arg	Lys	Val	Gly	Glu	Lys	Met	His	Val	Phe	Asn	Phe	Leu	Leu	Phe	Tyr		
1			5						10					15			
Pro	Ile	Phe	Met	Ser	Ile	Tyr	Trp	Ile	Val	Gly	Ser	Ile	Tyr	Tyr	Phe		
			20					25					30				
Phe	Ile	Lys	Glu	Lys	Pro	Phe	Asn	Arg	Ser	Leu	Leu	Val	Lys	Ser	Glu		
		35					40					45					
His	Gln	Gln	Val	Glu	Gly	Ile	Ser	Phe	Leu	Leu	Ala	Cys	Tyr	Asn	Glu		
	50					55					60						
Ser	Glu	Thr	Val	Gln	Asp	Thr	Leu	Ser	Ser	Val	Leu	Ser	Leu	Glu	Tyr		
65					70					75				80			
Pro	Glu	Lys	Glu	Ile	Ile	Ile	Ile	Asn	Asp	Gly	Ser	Ser	Asp	Asn	Thr		
				85				90						95			
Ala	Glu	Ile	Ile	Tyr	Asp	Phe	Lys	Lys	Asn	His	Asp	Phe	Lys	Phe	Val		
			100					105					110				
Asp	Leu	Glu	Val	Asn	Arg	Gly	Lys	Ala	Asn	Ala	Leu	Asn	Glu	Gly	Ile		
		115					120					125					
Lys	Gln	Ala	Ser	Tyr	Glu	Tyr	Val	Met	Cys	Leu	Asp	Ala	Asp	Thr	Val		
	130					135					140						
Ile	Asp	Asp	Asp	Ala	Pro	Phe	Tyr	Met	Ile	Glu	Asp	Phe	Lys	Lys	Asn		
145					150					155					160		
Pro	Lys	Leu	Gly	Ala	Val	Thr	Gly	Asn	Pro	Arg	Ile	Arg	Asn	Lys	Ser		
				165				170						175			
Ser	Ile	Leu	Gly	Lys	Ile	Gln	Thr	Ile	Glu	Tyr	Ala	Ser	Ile	Ile	Gly		
			180					185					190				
Cys	Ile	Lys	Arg	Ser	Gln	Ser	Leu	Ala	Gly	Ala	Ile	Asn	Thr	Ile	Ser		
		195					200					205					
Gly	Val	Phe	Thr	Leu	Phe	Lys	Lys	Ser	Ala	Leu	Lys	Asp	Val	Gly	Tyr		
	210					215					220						
Trp	Asp	Thr	Asp	Met	Ile	Thr	Glu	Asp	Ile	Ala	Val	Ser	Trp	Lys	Leu		
225				230						235					240		
His	Leu	Phe	Asp	Tyr	Glu	Ile	Lys	Tyr	Glu	Pro	Arg	Ala	Leu	Cys	Trp		
			245						250					255			
Met	Leu	Val	Pro	Glu	Thr	Ile	Gly	Gly	Leu	Trp	Lys	Gln	Arg	Val	Arg		
			260					265					270				
Trp	Ala	Gln	Gly	Gly	His	Glu	Val	Leu	Leu	Arg	Asp	Phe	Trp	Pro	Thr		
		275					280					285					
Ile	Lys	Thr	Lys	Lys	Leu	Ser	Leu	Tyr	Ile	Leu	Met	Phe	Glu	Gln	Ile		
	290					295					300						
Ala	Ser	Ile	Thr	Trp	Val	Tyr	Ile	Val	Leu	Cys	Tyr	Leu	Ser	Phe	Leu		
305					310					315					320		
Val	Ile	Thr	Ala	Asn	Ile	Leu	Asp	Tyr	Thr	Tyr	Leu	Lys	Tyr	Ser	Phe		
				325					330					335			
Ser	Ile	Phe	Phe	Phe	Ser	Ser	Phe	Thr	Met	Thr	Phe	Ile	Asn	Ile	Ile		
			340					345					350				

Gln Phe Thr Val Ala Leu Phe Ile Asp Ser Arg Tyr Glu Lys Lys Asn
 355 360 365
 Ile Val Gly Leu Ile Phe Leu Ser Trp Tyr Pro Thr Leu Tyr Trp Val
 370 375 380
 Ile Asn Ala Ala Val Val Ile Met Ala Phe Pro Lys Ala Leu Lys Arg
 385 390 395 400
 Lys Lys Gly Gly Tyr Ala Thr Trp Ser Ser Pro Asp Arg Gly Asn Ile
 405 410 415
 Gln Arg

<210> 4958

<211> 295

<212> PRT

<213> S.epidermidis

<400> 4958

Ile Gly Lys Gly Val Tyr Arg Leu Lys Lys Ile Lys Lys Ala Ile Ile
 1 5 10 15
 Pro Ala Ala Gly Leu Gly Thr Arg Phe Leu Pro Ala Thr Lys Ala Met
 20 25 30
 Pro Lys Glu Met Leu Pro Ile Leu Asp Lys Pro Thr Ile Gln Tyr Ile
 35 40 45
 Val Glu Glu Ala Ser Lys Ala Gly Ile Glu Asp Ile Ile Ile Val Thr
 50 55 60
 Gly Lys His Lys Arg Ala Ile Glu Asp His Phe Asp Asn Gln Lys Glu
 65 70 75 80
 Leu Glu Met Val Leu Glu Asn Lys Gly Lys Ala Asp Leu Leu Glu Lys
 85 90 95
 Val Gln Tyr Ser Thr Asp Leu Ala Asn Ile Phe Tyr Val Arg Gln Lys
 100 105 110
 Glu Gln Lys Gly Leu Gly His Ala Ile His Thr Ala Lys Gln Phe Ile
 115 120 125
 Gly Asn Glu Pro Phe Ala Val Leu Leu Gly Asp Asp Ile Val Glu Ser
 130 135 140
 Asp Thr Pro Ala Ile Lys Gln Leu Met Asp Val Tyr Glu Glu Thr Gly
 145 150 155 160
 His Ser Val Ile Gly Val Gln Glu Val Pro Glu Ser Asp Thr His Arg
 165 170 175
 Tyr Gly Val Ile Asp Pro Ser Ala Lys Gly Gly Ser Arg Tyr Glu Val
 180 185 190
 Arg Gln Phe Val Glu Lys Pro Lys Gln Gly Thr Ala Pro Ser Asn Leu
 195 200 205
 Ala Ile Met Gly Arg Tyr Val Leu Thr Pro Glu Ile Phe Asp Tyr Leu
 210 215 220
 Glu Thr Gln Gln Glu Gly Ala Gly Asn Glu Ile Gln Leu Thr Asp Ala
 225 230 235 240
 Ile Glu Arg Met Asn Ser Lys Gln Lys Val Tyr Ala Tyr Asp Phe Glu
 245 250 255
 Gly Asn Arg Tyr Asp Val Gly Glu Lys Leu Gly Phe Val Lys Thr Thr
 260 265 270
 Ile Glu Tyr Ala Leu Lys Asp Pro Glu Met Ser His Asp Leu Lys Ala
 275 280 285
 Phe Ile Lys Gln Leu Asp Ile
 290 295

<210> 4959
 <211> 232
 <212> PRT
 <213> S.epidermidis

<400> 4959

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Val Met Lys Gly Asn Leu Leu His Ser Ile Ile Glu Tyr Tyr Ser Leu
1      5      10      15
Asn Trp Ala Phe Leu Leu Glu Leu Phe Phe Lys His Leu Leu Met Ser
      20      25      30
Val Tyr Gly Val Leu Phe Ala Cys Ile Ile Gly Ile Pro Ile Gly Ile
      35      40      45
Phe Ile Ala Lys Tyr Lys Arg Leu Ser Trp Pro Val Ile Thr Ile Ala
      50      55      60
Asn Ile Ile Gln Thr Val Pro Ala Ile Ala Met Leu Ala Ile Leu Met
      65      70      75      80
Leu Ala Met Gly Leu Gly Pro Thr Thr Val Val Val Thr Val Phe Leu
      85      90      95
Tyr Ser Leu Leu Pro Ile Ile Lys Asn Thr Tyr Thr Gly Ile Val Glu
      100     105     110
Val Asp Glu Asn Ile Lys Asp Ala Gly Lys Gly Met Gly Met Thr Gly
      115     120     125
Asn Gln Ile Leu Arg Met Ile Glu Leu Pro Leu Ser Leu Ser Val Ile
      130     135     140
Ile Gly Gly Val Arg Ile Ala Leu Val Val Ala Ile Gly Ile Val Ala
      145     150     155     160
Ile Gly Ser Phe Ile Gly Ala Pro Thr Leu Gly Asp Ile Ile Ile Arg
      165     170     175
Gly Thr Asn Ser Thr Asp Gly Thr Thr Phe Ile Leu Ala Gly Ala Ile
      180     185     190
Pro Ile Ala Leu Ile Ala Ile Ile Asp Ile Gly Leu Arg Tyr Leu
      195     200     205
Glu Lys Arg Leu Asp Pro Thr Arg Lys Asn Lys Lys Asp Ser Met Gln
      210     215     220
Lys His Gln Val Gln Lys Leu His
      225     230

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<210> 4960
 <211> 43
 <212> PRT
 <213> S.epidermidis

<400> 4960

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Tyr Cys Glu Gly Tyr Gln Ile Ile Asp Asp Ile Val Arg Gln Asn Glu
1      5      10      15
Gln Ser Asn Gln Val Asp Asn Met Glu Pro Asp Thr Ser Ile Ile Gly
      20      25      30
Thr Gly Ser Phe Leu Ile Leu Ile Val Ile Glu
      35      40

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<210> 4961
 <211> 226
 <212> PRT
 <213> S.epidermidis

<400> 4961

Arg Glu Glu Gly Met Ile Met Asn Gln Met Asn Gln Thr Ile Ile Asp
 1 5 10 15
 Ala Phe His Phe Arg His Ala Thr Lys Glu Phe Asp Pro Thr Lys Lys
 20 25 30
 Ile Ser Asp Glu Asp Phe Asn Thr Ile Leu Glu Thr Gly Arg Leu Ser
 35 40 45
 Pro Ser Ser Leu Gly Leu Glu Pro Trp His Phe Val Val Val Gln Asn
 50 55 60
 Lys Glu Leu Arg Glu Lys Leu Lys Ala Tyr Ser Trp Gly Ala Gln Lys
 65 70 75 80
 Gln Leu Asp Thr Ala Ser His Phe Val Leu Ile Phe Ala Arg Lys Asn
 85 90 95
 Val Thr Ala His Thr Asp Tyr Val Gln His Leu Leu Arg Gly Val Lys
 100 105 110
 Lys Tyr Glu Ser Thr Ile Pro Ala Val Glu Asn Lys Phe Asp Asp
 115 120 125
 Phe Gln Glu Ser Phe His Ile Ala Asp Asn Glu Arg Thr Leu Tyr Asp
 130 135 140
 Trp Ala Ser Lys Gln Thr Tyr Ile Ala Leu Ala Asn Met Met Thr Ser
 145 150 155 160
 Ala Ala Leu Leu Gly Ile Asp Ser Cys Pro Ile Glu Gly Phe Asp Leu
 165 170 175
 Asp Lys Val Thr Glu Ile Leu Ser Asp Glu Gly Val Leu Asp Thr Glu
 180 185 190
 Gln Phe Gly Ile Ser Val Met Val Gly Phe Gly Tyr Arg Ala Gln Glu
 195 200 205
 Pro Lys His Gly Lys Val Arg Gln Asn Glu Asp Asp Ile Ile Ser Trp
 210 215 220
 Ile Glu
 225

<210> 4962

<211> 259

<212> PRT

<213> S.epidermidis

<400> 4962

Tyr Ser Arg Gly Val Thr Tyr Met Ala Leu Ile Thr Met Asn Tyr Asn
 1 5 10 15
 Ser Pro Thr Ile Gly Met His Gln Asn Leu Thr Ile Ile Leu Pro Glu
 20 25 30
 Asp Val Thr Phe Phe Gly Ser Ser Thr Thr Ala Lys His Leu Lys Ser
 35 40 45
 Met Leu Leu Leu His Gly Leu Ser Ser Asp Glu Thr Thr Tyr Ile Arg
 50 55 60
 Tyr Thr Ser Ile Glu Arg Tyr Ala Asn Glu His Gln Leu Ala Ile Ile
 65 70 75 80
 Met Pro Asn Val Asp His Ser Gly Tyr Ala Asn Met Val Tyr Gly His
 85 90 95
 Ser Tyr Tyr Asp Tyr Ile Leu Glu Ile Tyr Glu Tyr Val His Gln Ile
 100 105 110
 Leu Pro Leu Ser Arg Lys Arg Glu Asp Asn Phe Ile Ala Gly His Ser
 115 120 125
 Met Gly Gly Tyr Gly Thr Ile Lys Phe Ala Leu Thr Gln Ser Asp Lys
 130 135 140
 Phe Ala Lys Ala Ala Pro Leu Ser Ala Val Phe Glu Ala Gln Arg Phe

145		150		155		160
Ile Asp Leu Asp Trp Thr Asp Phe Ser Pro Gln Ser Ile Thr Gly Asn						
	165		170		175	
Asn Thr Gln Ile Lys Gly Thr Glu Leu Asp Thr Tyr Tyr Leu Leu Asp						
	180		185		190	
Gln Ala Ile Asp Ala Asn Val Asp Ile Pro Glu Leu Phe Ile Met Cys						
	195		200		205	
Gly Lys Glu Asp Phe Leu Tyr His Asp Asn Leu Gln Phe Ile Glu Thr						
	210		215		220	
Leu Asn Lys Lys Gly Val Ser Tyr Lys Phe Glu Asp Gly Pro Gly Asp						
225		230		235		240
His Asp Tyr Ala Tyr Trp Asp Arg Ala Ile Lys Arg Ala Ile Lys Trp						
	245		250		255	
Phe Val Gln						

<210> 4963

<211> 332

<212> PRT

<213> S.epidermidis

<400> 4963

Ile Lys Arg Gly Ile Gln Ser Met Ala Asn Gln Lys Leu Pro Thr Leu						
1	5	10	15			
Lys Tyr Thr Gly Lys Ser Glu Ser Ala Val Pro Ile Val Ser Glu Ser						
	20	25	30			
Glu Leu Gln Thr Val Thr Ala Glu Pro Trp Val Lys Ile Ser Asp Lys						
	35	40	45			
Gly Leu Gln Leu Glu Gly Leu Asn Phe Asn Arg Glu Gly Gln Leu Phe						
50	55	60				
Leu Leu Asp Val Phe Glu Gly Asn Ile Phe Lys Val Asn Pro Ala Thr						
65	70	75	80			
Lys Glu Val Thr Thr Lys Phe Gln Ser Val Lys Asp Asn Pro Ala Ala						
	85	90	95			
Ile Lys Val His Lys Asp Gly Arg Leu Phe Ile Cys Tyr Leu Gly Asp						
	100	105	110			
Phe Lys Thr Thr Gly Gly Ile Phe Ala Thr Thr Glu Lys Gly Glu Gln						
	115	120	125			
Ile Glu Glu Ile Ile Ser Asp Leu Asn Thr Glu Tyr Cys Ile Asp Asp						
	130	135	140			
Met Val Phe Asp Ser Lys Gly Gly Phe Tyr Phe Thr Asp Phe Arg Gly						
145	150	155	160			
Tyr Ser Thr Gln Pro Leu Gly Gly Val Tyr Tyr Val Asp Pro Asp Phe						
	165	170	175			
Lys Thr Val Thr Pro Ile Ile Gln Asn Ile Ser Val Ala Asn Gly Ile						
	180	185	190			
Ala Leu Ser Thr Asp Glu Lys Val Leu Trp Val Thr Glu Thr Thr Thr						
	195	200	205			
Asn Arg Leu His Arg Ile Ala Leu Glu Asp Asp Gly Val Thr Ile Ala						
	210	215	220			
Pro Phe Gly Ala Thr Ile Pro Tyr Tyr Phe Thr Gly His Glu Gly Pro						
225	230	235	240			
Asp Ser Cys Cys Ile Asp Ser Asn Asp Asn Leu Tyr Val Ala Met Tyr						
	245	250	255			
Gly Gln Gly Arg Val Leu Val Phe Asn Lys Arg Gly Tyr Pro Ile Gly						
	260	265	270			

Gln Ile Leu Met Pro Gly Arg Asp Asp Gly Lys Met Leu Arg Thr Thr
 275 280 285
 His Pro Gln Phe Ile Pro Gly Thr Asn Gln Leu Ile Ile Cys Thr Asn
 290 295 300
 Asp Ile Glu Asn His Ser Glu Gly Gly Ser Met Leu Tyr Thr Val Asn
 305 310 315 320
 Gly Phe Ala Lys Gly Tyr Glu Ser Tyr Gln Phe Gln
 325 330

<210> 4964

<211> 513

<212> PRT

<213> S.epidermidis

<400> 4964

Phe Ile Gly Gly Asn Lys Met Lys Asn Phe Ser Lys Phe Ala Leu Thr
 1 5 10 15
 Ser Ile Ala Ala Leu Thr Val Ala Ser Pro Leu Val Asn Thr Glu Val
 20 25 30
 Asp Ala Lys Asp Lys Val Ser Ala Thr Gln Asn Ile Asp Ala Lys Val
 35 40 45
 Thr Gln Glu Ser Gln Ala Thr Asp Ala Leu Lys Glu Leu Pro Lys Ser
 50 55 60
 Glu Asn Ile Lys Lys His Tyr Lys Asp Tyr Lys Val Thr Asp Thr Glu
 65 70 75 80
 Lys Asp Asn Lys Gly Phe Thr His Tyr Thr Leu Gln Pro Lys Val Gly
 85 90 95
 Asn Thr Tyr Ala Pro Asp Lys Glu Val Lys Val His Thr Asn Lys Glu
 100 105 110
 Gly Lys Val Val Leu Val Asn Gly Asp Thr Asp Ala Lys Lys Val Gln
 115 120 125
 Pro Thr Asn Lys Val Ser Ile Ser Lys Glu Ser Ala Thr Asp Lys Ala
 130 135 140
 Phe Glu Ala Ile Lys Ile Asp Arg Gln Lys Ala Lys Asn Leu Lys Ser
 145 150 155 160
 Asp Val Ile Lys Thr Asn Lys Val Glu Ile Asp Gly Glu Lys Asn Lys
 165 170 175
 Tyr Val Tyr Asn Ile Glu Ile Ile Thr Thr Ser Pro Lys Ile Ser His
 180 185 190
 Trp Asn Val Lys Ile Asp Ala Glu Thr Gly Gln Val Val Asp Lys Leu
 195 200 205
 Asn Met Ile Lys Glu Ala Ala Thr Thr Gly Thr Gly Lys Gly Val Leu
 210 215 220
 Gly Asp Thr Lys Gln Ile Asn Ile Asn Ser Val Ser Gly Gly Tyr Ala
 225 230 235 240
 Leu Gln Asp Leu Thr Gln Gln Gly Thr Leu Ser Ala Tyr Asn Tyr Asp
 245 250 255
 Ala Asn Thr Gly Gln Ala Tyr Leu Met Gln Asp Lys Asp Arg Asn Phe
 260 265 270
 Asp Asp Asp Glu Gln Arg Ala Gly Val Asp Ala Asn Tyr Tyr Ala Lys
 275 280 285
 Glu Thr Tyr Asp Tyr Tyr Lys Asn Thr Phe Gly Arg Glu Ser Tyr Asp
 290 295 300
 Asn Gln Gly Ser Pro Ile Ile Ser Leu Ala His Val Asn Asn Phe Gln
 305 310 315 320
 Gly Gln Asp Asn Arg Asn Asn Ala Ala Trp Ile Gly Asp Lys Met Ile

1970

				325					330					335			
Tyr	Gly	Asp	Gly	Asp	Gly	Arg	Thr	Phe	Thr	Ala	Leu	Ser	Gly	Ala	Asn		
			340					345					350				
Asp	Val	Val	Ala	His	Glu	Ile	Thr	His	Gly	Val	Thr	Gln	Gln	Thr	Ala		
		355					360					365					
Asn	Leu	Val	Tyr	Arg	Ser	Gln	Ser	Gly	Ala	Leu	Asn	Glu	Ser	Phe	Ser		
	370					375					380						
Asp	Val	Phe	Gly	Tyr	Phe	Val	Asp	Asp	Glu	Asp	Phe	Leu	Met	Gly	Glu		
385					390				395						400		
Asp	Val	Tyr	Thr	Pro	Gly	Val	Gly	Gly	Asp	Ala	Leu	Arg	Ser	Met	Ser		
				405				410						415			
Asn	Pro	Glu	Arg	Phe	Gly	Gln	Pro	Ser	His	Met	Asn	Asp	Phe	Val	Tyr		
		420						425					430				
Thr	Asn	Ser	Asp	Asn	Gly	Gly	Val	His	Thr	Asn	Ser	Gly	Ile	Pro	Asn		
		435					440					445					
Lys	Ala	Ala	Tyr	Asn	Thr	Ile	Arg	Ser	Ile	Gly	Lys	Gln	Arg	Ser	Glu		
	450					455				460							
Gln	Ile	Tyr	Tyr	Arg	Ala	Leu	Thr	Val	Tyr	Leu	Thr	Ser	Asn	Ser	Asp		
465					470				475						480		
Phe	Gln	Asp	Ala	Lys	Ala	Ser	Leu	Gln	Gln	Ala	Ala	Leu	Asp	Leu	Tyr		
				485				490					495				
Gly	Asp	Gly	Ile	Ala	Gln	Gln	Val	Gly	Gln	Ala	Trp	Asp	Ser	Val	Gly		
			500					505					510				
Val																	

<210> 4965

<211> 258

<212> PRT

<213> S.epidermidis

<400> 4965

Ile	Leu	Gly	Gly	Ile	Ile	Leu	Ile	Lys	Lys	Arg	Val	Ile	Pro	Cys	Leu		
1				5				10					15				
Asp	Val	Lys	Asp	Gly	Arg	Val	Val	Lys	Gly	Ile	Gln	Phe	Gln	Ser	Leu		
		20						25				30					
Arg	Asp	Ile	Gly	Asn	Pro	Val	Asp	Leu	Ala	Leu	Tyr	Tyr	Asn	Glu	Ala		
		35					40					45					
Gly	Ala	Asp	Glu	Leu	Val	Phe	Leu	Asp	Ile	Ser	Lys	Thr	Glu	Ala	Gly		
	50					55				60							
His	Asp	Leu	Met	Ile	Glu	Val	Ile	Glu	Ala	Thr	Ala	Lys	Gln	Leu	Phe		
65					70				75						80		
Ile	Pro	Leu	Thr	Val	Gly	Gly	Gly	Ile	Gln	Asn	Leu	Asp	Asp	Ile	Thr		
			85					90					95				
Gln	Leu	Leu	Asn	His	Gly	Ala	Asp	Lys	Ile	Ser	Leu	Asn	Ser	Ser	Ala		
		100						105					110				
Leu	Lys	His	Pro	Glu	Leu	Ile	Arg	Gln	Ala	Ser	Glu	Lys	Phe	Gly	Arg		
	115						120					125					
Gln	Cys	Ile	Cys	Ile	Ala	Ile	Asp	Ser	Phe	Tyr	Asp	Lys	Asp	Arg	Glu		
	130					135					140						
Asp	Tyr	Phe	Cys	Thr	Thr	His	Gly	Gly	Lys	Lys	Leu	Thr	Asp	Val	Ser		
145					150					155					160		
Val	Tyr	Asp	Trp	Val	Gln	Glu	Val	Glu	His	Leu	Gly	Ala	Gly	Glu	Leu		
				165					170					175			
Leu	Ile	Thr	Ser	Met	His	His	Asp	Gly	Met	Lys	Gln	Gly	Phe	Asp	Ile		
			180					185					190				

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<210> 4966
<211> 256
<212> PRT
<213> S.epidermidis
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Leu	Ser	Met	Gly	Trp	Asn	Glu	Ser	His	Phe	Leu	Ile	Ile	Tyr	Ile	Glu
1				5					10					15	
Gly	Gly	Leu	Met	Val	Ser	Ser	Glu	Tyr	Lys	Lys	Gly	Ile	Phe	Leu	Ala
			20					25					30		
Leu	Gly	Ala	Tyr	Ile	Leu	Trp	Gly	Ile	Leu	Pro	Ile	Tyr	Trp	Arg	Leu
		35					40					45			
Ile	Asp	Glu	Ile	Gly	Ala	Phe	Glu	Ile	Leu	Ala	Phe	Arg	Ile	Ile	Phe
	50					55					60				
Ser	Val	Ile	Phe	Met	Ile	Phe	Val	Leu	Ile	Ile	Gly	Lys	Asn	Gln	Arg
65					70					75				80	
Asn	Ala	Phe	Leu	Arg	Asp	Val	Asn	Gln	Leu	Val	Ser	His	Pro	Val	Gln
				85					90					95	
Leu	Ile	Ala	Ile	Ile	Val	Ala	Gly	Tyr	Val	Ile	Thr	Val	Asn	Trp	Gly
			100					105					110		
Thr	Phe	Ile	Trp	Ala	Val	Ser	Asn	Gly	His	Val	Leu	Gln	Ser	Ser	Leu
		115					120					125			
Gly	Tyr	Tyr	Ile	Asn	Pro	Leu	Val	Ser	Ile	Val	Leu	Ala	Leu	Ile	Phe
	130					135					140				
Leu	Lys	Glu	Arg	Phe	Asn	Lys	Phe	Glu	Trp	Leu	Ala	Ile	Ile	Phe	Ala
145					150					155				160	
Leu	Ile	Gly	Val	Leu	Tyr	Met	Thr	Ile	Lys	Ile	Gly	Glu	Phe	Pro	Phe
			165						170					175	
Ile	Ser	Leu	Leu	Leu	Ala	Phe	Ser	Phe	Gly	Ile	Tyr	Gly	Leu	Leu	Lys
			180					185					190		
Lys	Ile	Val	His	Ile	Asp	Ala	Ile	Ser	Ser	Ile	Thr	Ile	Arg	Met	Tyr
		195					200					205			
Cys	Tyr	Cys	Thr	Ser	Arg	Phe	Asn	Leu	Cys	Tyr	Leu	Pro	Met	Ala	Ala
	210					215					220				
Thr	Thr	His	Asn	Ile	Trp	Ile	Lys	Tyr	Ile	Ile	Ile	Leu	Ala	Thr	Ile
225					230					235				240	
Phe	Arg	Cys	Asn	Tyr	Ser	Asn	Thr	Ile	Asp	Ser	Val	Leu	Ser	Arg	Cys
			245						250					255	

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<210> 4967
<211> 266
<212> PRT
<213> S.epidermidis
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<400> 4967

1972

Thr	Arg	Gly	Gly	Val	Val	His	Met	Gly	Lys	Val	Tyr	Leu	Val	Gly	Ala
1				5					10					15	
Gly	Pro	Gly	Asp	Pro	Glu	Leu	Ile	Thr	Leu	Lys	Gly	Leu	Lys	Ala	Ile
			20					25					30		
Lys	Glu	Ala	Asp	Val	Ile	Leu	Tyr	Asp	Arg	Leu	Val	Asn	Lys	Glu	Ile
		35					40					45			
Leu	Asn	Tyr	Ala	Ser	Pro	Ser	Thr	Lys	Phe	Phe	Tyr	Cys	Gly	Lys	Asp
		50				55					60				
Pro	His	Arg	His	Ser	Leu	Pro	Gln	Glu	Glu	Thr	Asn	Lys	Met	Met	Val
65					70					75					80
Thr	Leu	Ala	Lys	Lys	Gly	His	Ile	Val	Thr	Arg	Leu	Lys	Gly	Gly	Asp
			85						90					95	
Pro	Phe	Val	Phe	Gly	Arg	Gly	Gly	Glu	Glu	Ala	Glu	Glu	Leu	Ala	Cys
			100					105					110		
His	Asn	Ile	His	Phe	Glu	Ile	Ile	Pro	Gly	Ile	Thr	Ser	Gly	Ile	Ala
		115					120					125			
Ala	Pro	Ala	Tyr	Ala	Gly	Ile	Pro	Val	Thr	His	Arg	Asp	Tyr	Ser	Ser
		130				135					140				
Ser	Val	Ala	Phe	Val	Thr	Ala	Val	Asn	Lys	Pro	Gly	Met	Asp	Lys	Gly
145					150					155					160
Lys	Tyr	Trp	Gln	His	Leu	Ala	Asn	Gly	Pro	Glu	Thr	Leu	Cys	Ile	Tyr
			165					170						175	
Met	Gly	Val	Lys	Arg	Leu	Ser	Glu	Ile	Cys	Glu	Leu	Leu	Ile	Gln	Tyr
			180					185					190		
Gly	Arg	Ser	Ser	Glu	Thr	Pro	Val	Ala	Leu	Val	His	Met	Gly	Thr	Ser
		195				200						205			
Lys	Gln	Gln	Met	Thr	Val	Thr	Gly	Thr	Leu	Asp	Thr	Ile	Gln	Glu	Arg
		210				215					220				
Ala	His	His	Ile	Gln	Asn	Pro	Ala	Met	Ile	Ile	Val	Gly	Glu	Val	Val
225					230					235					240
Lys	Met	Arg	Glu	Lys	Ile	Asn	Trp	Phe	Val	Glu	Gln	Ala	Thr	Val	Gln
			245					250						255	
Asn	Glu	Thr	Leu	Thr	Glu	Met	Ser	Ser	Thr						
			260					265							

<210> 4968

<211> 48

<212> PRT

<213> S.epidermidis

<400> 4968

Leu	Gln	Ile	Phe	Ile	Leu	Ser	His	Leu	His	Leu	Pro	Pro	Leu	Phe	Phe
1				5					10					15	
Ala	Asn	Ile	Ser	Met	Asn	Tyr	Gln	Phe	His	Asn	Asp	Asn	Val	Phe	Leu
			20					25					30		
Phe	Leu	His	Phe	Leu	Tyr	Ser	Ser	Ser	Asn	Tyr	Phe	Ile	Arg	Tyr	Ala
		35					40					45			

<210> 4969

<211> 354

<212> PRT

<213> S.epidermidis

<400> 4969

Gly	Val	Phe	Ile	Met	Lys	Ala	Ala	Val	Trp	Tyr	Gly	Gln	Lys	Asp	Val
1				5					10					15	

1973

Arg Val Glu Asp Arg Glu Pro Lys Ala Ile Lys Asp Asn Glu Val Gln
 20 25 30
 Val Lys Val Ser Trp Ala Gly Ile Cys Gly Thr Asp Leu His Glu Tyr
 35 40 45
 Leu Glu Gly Pro Ile Phe Ile Ser Thr Asp Gln Pro Asp Pro Leu Leu
 50 55 60
 Gly Gln Thr Ala Pro Val Thr Leu Gly His Glu Phe Ser Gly Val Val
 65 70 75 80
 Glu Asn Val Gly Lys Asn Val Ser Arg Phe Lys Lys Gly Asp Arg Val
 85 90 95
 Val Val Asn Pro Thr Val Ser Lys Arg Glu Lys Pro Glu Asn Val Asp
 100 105 110
 Leu Tyr Asp Gly Tyr Ser Phe Ile Gly Leu Gly Ser Asp Gly Ala Phe
 115 120 125
 Ala Glu Phe Thr Asn Ala Pro Glu Thr Asn Val Tyr His Leu Pro Asp
 130 135 140
 Asn Val Ser Ala Arg Glu Gly Ala Leu Val Glu Pro Thr Ala Val Ala
 145 150 155 160
 Val Gln Ala Val Lys Glu Gly Glu Leu Leu Phe Gly Asp Thr Val Ala
 165 170 175
 Val Phe Gly Ala Gly Pro Ile Gly Leu Leu Thr Ile Val Ala Ala Lys
 180 185 190
 Ala Ala Gly Ala Ser Lys Ile Phe Val Phe Asp Leu Ser Glu Glu Arg
 195 200 205
 Leu Ala Lys Ala Lys Ser Val Gly Ala Thr His Val Tyr Asn Ser Gly
 210 215 220
 Asn Val Asp Pro Val Gln Thr Val Tyr Glu His Thr Asp Asn Gly Val
 225 230 235 240
 Asp Val Ser Phe Glu Val Ala Gly Val Gly Ile Thr Leu Gln Gln Ser
 245 250 255
 Ile Glu Val Thr Arg Pro Arg Gly Thr Ala Val Ile Val Ser Ile Phe
 260 265 270
 Gly His Pro Val Glu Phe Asn Pro Leu Leu Gln Met Asn Lys Gly Val
 275 280 285
 Lys Leu Thr Thr Thr Ile Ala Tyr Thr Pro Thr Thr Phe Gln Gln Thr
 290 295 300
 Ile Asp Leu Ile Ala Asn Gly Ser Leu Asn Val Lys Asp Val Val Thr
 305 310 315 320
 Asp Gln Ile Glu Leu Asp Asn Ile Val Glu Ser Gly Phe Asn Gln Leu
 325 330 335
 Val Asn Asp Lys Ser Gln Ala Lys Ile Leu Val Arg Leu Asn Gly Asp
 340 345 350
 Gln Lys

<210> 4970

<211> 131

<212> PRT

<213> S.epidermidis

<400> 4970

Leu Phe Phe Ile Lys Glu Gly Cys Leu Leu Met Ser Gln Ile Glu Phe
 1 5 10 15
 Lys Asp Val Ser Lys Val Tyr Pro Asn Gly His Val Gly Leu Lys Asp
 20 25 30
 Ile Asn Leu Asn Ile Glu Lys Gly Asp Phe Ala Val Ile Val Gly Leu

		35					40				45						
Ser	Gly	Ala	Gly	Lys	Ser	Thr	Leu	Leu	Arg	Ser	Val	Asn	Arg	Leu	His		
	50					55					60						
Asp	Ile	Ser	Lys	Gly	Asp	Ile	Thr	Ile	Glu	Gly	Gln	Ser	Ile	Thr	Lys		
65					70				75						80		
Ala	Arg	Gly	Lys	Lys	Leu	Leu	Glu	Met	Arg	Arg	Ser	Ile	Gly	Met	Ile		
				85					90					95			
Phe	Gln	His	Phe	Asn	Leu	Val	Lys	Arg	Ser	Thr	Val	Leu	Arg	Asn	Val		
			100					105					110				
Leu	Ser	Gly	Gln	Gly	Arg	Ile	Pro	Ser	Tyr	Leu	Glu	Asn	Asp	Thr	Gly		
		115					120					125					
Ser	Phe	Ser															
	130																

<210> 4971

<211> 77

<212> PRT

<213> S.epidermidis

<400> 4971

Leu	Tyr	Phe	Ile	Ile	Leu	Leu	Leu	Lys	Ile	Ile	Arg	Ile	Phe	Met	Ser		
1				5					10					15			
Phe	Val	Thr	Lys	Tyr	Val	Asn	Ile	His	Ser	Asn	Leu	Lys	Leu	Ile	Tyr		
			20					25					30				
Leu	Phe	Asn	Tyr	His	Phe	Ile	Tyr	Ile	Ser	Phe	Leu	Leu	Leu	Val	Gly		
		35					40					45					
Phe	Ile	Ser	Leu	Leu	Leu	Cys	Gly	His	Thr	Tyr	Ala	Arg	Gln	Thr	Val		
	50					55					60						
Ala	Leu	Pro	Gln	Gly	Ala	Ile	Arg	Ser	Phe	Val	Phe	Phe					
65					70					75							

<210> 4972

<211> 296

<212> PRT

<213> S.epidermidis

<400> 4972

Arg	Cys	Leu	Met	Asp	Phe	Ile	Ala	Ile	Leu	Ile	Gly	Leu	Gly	Pro	Leu		
1				5					10					15			
Leu	Gly	Trp	Gly	Leu	Phe	Pro	Thr	Ile	Ala	Ser	Lys	Phe	Gly	Gly	Arg		
			20					25					30				
Pro	Val	Asn	Gln	Ile	Phe	Gly	Ala	Thr	Val	Gly	Thr	Leu	Ile	Phe	Ala		
		35					40					45					
Ile	Val	Leu	Ala	Leu	Phe	Lys	Gly	Ile	Gly	Leu	Pro	Gly	Gly	Met	Ala		
	50					55					60						
Leu	Val	Phe	Ser	Leu	Ile	Ser	Gly	Ala	Gly	Trp	Ala	Phe	Gly	Gln	Ile		
65					70					75					80		
Ile	Thr	Phe	Lys	Ala	Phe	Glu	Leu	Val	Gly	Ser	Ser	Arg	Ala	Met	Pro		
			85						90					95			
Ile	Thr	Thr	Ala	Phe	Gln	Leu	Leu	Gly	Ala	Ser	Leu	Trp	Gly	Val	Phe		
			100					105					110				
Ala	Leu	Gly	Asn	Trp	Pro	Gly	Ile	Thr	Asn	Lys	Ile	Ile	Gly	Phe	Leu		
		115					120					125					
Ala	Leu	Leu	Val	Ile	Leu	Ile	Gly	Ala	Arg	Met	Thr	Val	Trp	Thr	Glu		
	130					135					140						
Thr	Lys	Gln	Gln	Glu	Tyr	Ser	Lys	Asn	Leu	Arg	Ser	Ala	Val	Ile	Leu		

1975

145		150		155		160									
Leu	Leu	Val	Gly	Glu	Ile	Gly	Tyr	Trp	Ile	Tyr	Ser	Ala	Ala	Pro	Gln
		165		170		175									
Ala	Thr	Asp	Ile	Gly	Gly	Phe	Lys	Ala	Phe	Leu	Pro	Gln	Ala	Ile	Gly
		180		185		190									
Met	Val	Ile	Val	Ala	Val	Ile	Tyr	Ala	Leu	Met	Asn	Met	Ser	Lys	Gly
		195		200		205									
Asn	Ala	Phe	Lys	Glu	Lys	Val	Ser	Trp	Gln	Gln	Ile	Ile	Ser	Gly	Phe
		210		215		220									
Phe	Phe	Ala	Phe	Ala	Ala	Leu	Thr	Tyr	Leu	Ile	Ser	Ala	Gln	Pro	Asn
225				230		235									240
Met	Asn	Gly	Leu	Ala	Thr	Gly	Phe	Val	Leu	Ser	Gln	Thr	Ser	Val	Val
		245		250		255									
Leu	Ala	Thr	Leu	Thr	Gly	Ile	Phe	Phe	Leu	Asn	Gln	Lys	Lys	Thr	Ser
		260		265		270									
Lys	Glu	Leu	Met	Ile	Thr	Ile	Val	Gly	Leu	Val	Leu	Ile	Leu	Val	Ala
		275		280		285									
Ala	Ser	Ile	Thr	Val	Phe	Ile	Lys								
		290		295											

<210> 4973
 <211> 46
 <212> PRT
 <213> S.epidermidis

<400> 4973
 Asn Leu Leu Ile Tyr Lys Glu Ser Ile Leu Val Leu Val Ala Glu Arg
 1 5 10 15
 Thr Thr Asn Ala Val Ser Leu Phe Leu Ile Ile Leu Leu Asp Leu Asp
 20 25 30
 Tyr Ile Pro Gln Ala Asp Lys Pro Cys Ala Leu Tyr Ala Leu
 35 40 45

<210> 4974
 <211> 40
 <212> PRT
 <213> S.epidermidis

<400> 4974
 Arg Ile Leu Ile Tyr Met Glu Leu Ile Ile Ser Tyr Leu Ser Glu Ile
 1 5 10 15
 Thr Phe Tyr Leu Asn Val Val Ser Leu Phe Phe Thr Gln Thr Ile Ile
 20 25 30
 Thr Ile Lys Ile Cys Ile Phe His
 35 40

<210> 4975
 <211> 41
 <212> PRT
 <213> S.epidermidis

<400> 4975
 Ile Trp Leu Ile His Phe Tyr Thr Leu Ile Thr Leu Asn Thr His Asn
 1 5 10 15
 Gln Ile Asp Ile Leu Gly Lys Leu Val Ile Ile Lys Tyr Asp Leu Phe
 20 25 30

1976

Ser Lys Lys Ile Tyr Leu Phe Tyr Lys
35 40

<210> 4976

<211> 107

<212> PRT

<213> S.epidermidis

<400> 4976

Val Val Ile Ile Glu Thr Glu Tyr Tyr Cys His Leu Leu Ser Val Val
1 5 10 15
Thr Leu Pro Ile Gly Tyr Phe Leu Val Leu Asn His His Val Ile Gln
20 25 30
Val Leu Gln Leu Gln Gly Gly Ile Ile Met Lys Cys Ile Ile Asn Gly
35 40 45
Asp Leu Phe Thr Phe Asp Gln Asn Gln Ser Ile Gln Glu Val Leu His
50 55 60
Ser Leu Glu Leu Asp Pro Lys Arg Val Ile Val Glu Leu Asn Lys Glu
65 70 75 80
Leu Ile Lys Gln Asp Lys Tyr Glu Glu Tyr Thr Val Arg Glu Asp Asp
85 90 95
Arg Leu Glu Leu Leu Glu Ile Val Gly Gly Gly
100 105

<210> 4977

<211> 49

<212> PRT

<213> S.epidermidis

<400> 4977

Gln Pro Ile Ile Lys Ile Ile Asn Lys Thr Ile Phe Thr Asn Ile Ser
1 5 10 15
Glu Asn Glu Leu Asn Arg Leu Thr Phe Leu Met Asp Ser Arg Leu Lys
20 25 30
Val Ser Asn Asn Ile Pro Ile Asn Val Ile Ile Pro Lys Thr Leu Pro
35 40 45
Ile

<210> 4978

<211> 64

<212> PRT

<213> S.epidermidis

<400> 4978

Phe Ile Val Ile Lys Ala Ile Tyr Val Thr Pro Leu Leu Tyr Tyr Leu
1 5 10 15
Leu Phe Tyr Leu Phe Phe Ser Leu Ile Tyr Arg Lys Asn Ala Thr Leu
20 25 30
Thr Ile Asp Tyr Ile Asn Phe Tyr Thr Phe Gln Cys Gly Thr Lys Ile
35 40 45
Leu Phe Ser Ile Leu Asn Lys Leu Ile Gln Tyr Arg Leu Ser Asn Leu
50 55 60

<210> 4979

<211> 66

CCITT 4-bit

<212> PRT

<213> S.epidermidis

<400> 4979

Gly	Asn	Pro	Ile	Asp	Asn	Asn	Ile	Asp	Pro	Met	Ile	Ala	Pro	Arg	Lys
1				5				10					15		
Leu	Ala	Thr	Leu	Lys	Ile	Glu	Ala	Ala	Asn	Val	Leu	Ala	Arg	Ser	Gly
			20					25				30			
Ala	Ser	Phe	Ala	Leu	Lys	Ile	Ile	Leu	Leu	Leu	Ser	Asn	Gly	Val	Val
		35				40					45				
Pro	Asn	Val	Pro	Lys	Pro	Asn	Lys	Lys	Gln	Met	Ile	Asn	Ala	Asn	Ile
	50					55					60				
Glu	Phe														
65															

<210> 4980

<211> 159

<212> PRT

<213> S.epidermidis

<400> 4980

Gly	Thr	Tyr	Met	Thr	Ile	Glu	Lys	Lys	Lys	Asn	Lys	Ile	Ile	Phe	Thr
1				5					10				15		
Arg	Thr	Phe	Ser	Ala	Pro	Ile	Asn	Lys	Val	Phe	Asp	Ala	Tyr	Thr	Lys
			20					25				30			
Arg	Glu	Leu	Phe	Glu	Gln	Trp	Phe	His	Pro	Gln	Asp	Ala	Ser	Val	Thr
		35				40					45				
Val	Tyr	Asp	Phe	Asn	Ala	Thr	Lys	Gly	Gly	Asn	Ala	Phe	Tyr	Ala	Ile
	50					55				60					
Gln	Ala	Pro	Gln	Met	Thr	Ser	Tyr	Thr	Ile	Ala	Glu	Tyr	Leu	Gln	Val
65					70					75				80	
Asp	Ala	Pro	Tyr	Tyr	Ile	Glu	Tyr	Leu	Asp	Tyr	Phe	Ala	Thr	Ser	Lys
			85					90					95		
Gly	Glu	Lys	Asp	Thr	Ser	Met	Pro	Gly	Met	His	Ile	Thr	Leu	Asn	Phe
			100					105					110		
Glu	Glu	Val	Lys	Gly	Lys	Thr	Thr	Val	Thr	Ser	Thr	Ser	Thr	Phe	Pro
		115					120					125			
Thr	Glu	Ser	Ala	Ala	Gln	Gln	Ala	Ile	Asp	Met	Gly	Val	Glu	Thr	Gly
	130					135					140				
Met	Asn	Ser	Thr	Leu	Asn	Gln	Leu	Glu	Lys	Leu	Leu	Asn	Gln	Lys	
145					150					155					

<210> 4981

<211> 209

<212> PRT

<213> S.epidermidis

<400> 4981

Ile	His	His	Ile	Ser	Ser	Ile	Arg	Asn	Gly	Val	Ile	Asn	Val	Lys	Lys
1				5					10				15		
Ile	Ser	Leu	Ile	Ala	Thr	Thr	Val	Leu	Thr	Gly	Leu	Leu	Leu	Phe	Pro
		20						25				30			
Ser	Val	Asn	Asp	Thr	Thr	Thr	His	Ala	Ala	Glu	Val	Thr	Ser	His	Asp
		35					40					45			
Ala	Gln	Ala	Val	Ala	Ile	Gln	Ala	Met	Lys	Asn	Ser	Gly	Gly	Asn	Pro
	50					55					60				

1978

Asp	Leu	Gln	Asn	Phe	Lys	Lys	Val	Lys	Asp	Lys	Gly	Asp	Tyr	Phe	Thr
65					70					75					80
Ile	Asp	Ile	Asn	Asn	Lys	Ser	Gly	Ala	Gly	Val	Gly	Thr	Tyr	Lys	Val
			85						90					95	
Tyr	Lys	Asn	Gly	Val	Val	Leu	Tyr	Lys	Ser	Gly	Asn	Tyr	Gly	Glu	Tyr
			100					105					110		
Ser	Gln	Leu	Asn	Thr	Arg	Gln	Cys	Tyr	Val	Ala	Gln	Asp	Ile	Ala	Thr
		115					120					125			
Thr	Ser	Ser	Gln	Val	Lys	Arg	His	Ser	Thr	Gln	Gln	Thr	Gln	Ala	Val
		130				135					140				
Asp	Ser	Thr	Arg	Glu	Leu	Asn	Ser	Tyr	Tyr	Val	Gly	Gln	Val	Gln	Ser
145					150					155					160
Ser	Asp	Leu	Pro	Gln	Gln	Ser	Ser	Ser	Asp	Met	Leu	Pro	Asn	Thr	Gly
				165					170					175	
Met	Lys	Asp	Lys	Asn	Phe	Asn	Thr	Asn	Gly	Ile	Ile	Ser	Leu	Phe	Leu
			180					185					190		
Leu	Thr	Ala	Gly	Phe	Ile	Thr	Leu	Tyr	His	Gln	Pro	Leu	Arg	Lys	Met
		195					200					205			

Ser

<210> 4982
 <211> 63
 <212> PRT
 <213> S.epidermidis

<400> 4982

Leu	Asn	His	Ile	Phe	Phe	His	Ile	Arg	Glu	Ala	Ser	Ile	Ile	Thr
1			5					10					15	
Thr	Val	Pro	Val	Ser	Ile	Ala	Ile	Lys	Ser	Val	Thr	Val	Lys	Phe
			20					25					30	Arg
Ile	Asn	Lys	Asn	Gly	Tyr	Pro	Pro	Phe	Val	Lys	Val	Asn	Asn	Arg
		35					40					45		Phe
Leu	Ile	Tyr	Leu	Ser	Lys	Ile	Arg	Thr	Ile	Gln	His	Val	Phe	Leu
	50					55					60			

<210> 4983
 <211> 46
 <212> PRT
 <213> S.epidermidis

<400> 4983

Tyr	Ile	His	Ile	Ala	His	Arg	Gln	Phe	Tyr	Ile	Leu	Ile	Ile	Ile	Gln
1			5					10						15	
Phe	Thr	Tyr	Asp	Phe	His	Phe	Asn	Tyr	Gln	Asp	Phe	Phe	Ser	Leu	Ile
			20					25					30		
Ser	Phe	Leu	Asp	Arg	Ile	Asn	Ile	Asn	Gln	Leu	Phe	Arg	Lys		
		35					40					45			

<210> 4984
 <211> 206
 <212> PRT
 <213> S.epidermidis

<220>
 <221> UNSURE

CCF001.666978

<223> Identity of amino acid sequences at the above locations are unknown.

Arg 1	Ile	His	Ile	Met 5	Lys	Ile	Ile	Leu	Pro 10	Val	Lys	Pro	Ile	Ser 15	Gln
Leu	Phe	Pro	Ile 20	Pro	Phe	Val	Met	Gly 25	Cys	Glu	Gly	Val	Ser 30	Ala	Ala
Met	Leu	Leu	Gln	Phe	Asn	Asn	Tyr 40	Asp	Ile	Lys	Ala	Thr	Gln	Ile	Met
Ser	His	Trp	Pro	Lys	His	Pro	Thr	Asn	Pro	Tyr	Lys	Gly	Tyr	Val	Gly
His 65	Pro	Leu	Leu	Val	Lys 70	Phe	Gly	His	His	Gln	Thr	Ile	Phe	Pro	Asp 80
Ala	Phe	Ala	Pro	Phe	Leu	Lys	Gln	Tyr	Asp 90	Ser	Arg	Ile	Val	Asp 95	Gly
Thr	Gly	Thr	Ser 100	Leu	Asn	Gln	Leu	Glu 105	Lys	Phe	Ile	Asp	Lys	Gly	Gln
Pro	Val	Ile	Ile	Tyr	His	Thr	Ser 120	Leu	Gly	Ser	Lys	Pro	Leu	Arg	Arg
Val	Phe	His	Phe	Asp	Asn	Gln	Pro	Thr	Lys	Leu	Val	Ser	Asn	Ile	His
Val 145	Thr	Leu	Leu	Ile	Gly 150	Tyr	Asp	Asp	Asp	Tyr	Tyr	Tyr	Tyr	Ile	Asp 160
Pro	Leu	Trp	Ser	Arg	Leu	Ser	Lys	Phe	Xaa 170	Ile	Phe	Pro	Ser	Ile	Ile
Pro	Asn	Ser	Lys 180	Gln	Phe	Ile	Lys	Ile	Lys	Lys	His	Thr	Leu	Glu	Asn
Ser	Tyr	Asn	Ala	Pro	Gly	Lys	Lys 200	Cys	Ile	Tyr	Ile	Asp 205	Asn		

<213> S.epidermidis

Thr	Leu	Asn	Ile	Ile	Phe	Ile	Ser	Phe	Val	Lys	Phe	Asn	Phe	Leu	Thr
1				5					10					15	
His	Cys	Ser	Ser	Gln	Ser	Ser	Thr	Ile	Leu	Phe	Thr	Leu	Leu	Leu	Ala
			20					25					30		
His	Ile	Ser	Ser	Lys	Tyr	Asn	Phe	Ser	Cys	Tyr	Ser				
		35					40								

<213> S.epidermidis

Val	Thr	Asn	Met	Thr	Phe	Lys	Ile	Leu	Trp	Lys	Met	Ile	Lys	Gln	Asn
1				5					10					15	
Phe	Val	Asn	Gln	Arg	His	Ile	Ile	Val	Pro	Phe	Ile	Ser	Val	Ile	Ser
		20						25					30		
Ile	Leu	Phe	Gly	Ile	Glu	Tyr	Ile	Leu	Leu	Ser	Leu	Thr	Thr	Asn	Ile
		35					40					45			

1980

Tyr	Phe	Asn	Glu	His	His	Pro	Glu	Leu	Lys	Ile	Ser	Ala	Ile	Ile	Gly
50						55					60				
Ile	Val	Phe	Met	Thr	Met	Leu	Leu	Phe	Ile	Phe	Leu	Ile	Tyr	Ala	Asn
65					70					75					80
His	Phe	Val	Met	Asn	His	Arg	Lys	Lys	Glu	Phe	Ala	Leu	Asn	Met	Val
				85					90					95	
Leu	Gly	Met	Glu	Lys	Lys	His	Leu	Arg	Leu	Ile	Ile	Leu	Ile	Glu	Leu
			100					105					110		
Phe	Ile	Gln	Phe	Ile	Ile	Ser	Ala	Ile	Leu	Ser	Ile	Val	Gly	Gly	Tyr
		115					120					125			
Leu	Phe	Gly	Glu	Leu	Phe	Phe	Met	Leu	Phe	Asn	Lys	Leu	Val	Asn	Thr
130						135					140				
His	Gln	Pro	Gln	Leu	Ser	Asp	Tyr	Pro	Phe	Asp	Val	Leu	Ser	Met	Lys
145					150					155					160
Ile	Thr	Leu	Thr	Met	Leu	Leu	Ser	Leu	Met	Ile	Ile	Leu	Phe	Val	Ile
				165					170					175	
Asn	Asn	Phe	Lys	Ile	Ser	Phe	Lys	Asn	Ser	Leu	Gln	Leu	Leu	Leu	Lys
			180					185					190		
Asn	Lys	Ser	Lys	Thr	His	Glu	Lys	Ser	Arg	Val	Arg	Leu	Ile	Ile	Phe
			195				200					205			
Leu	Ile	Leu	Gly	Leu	Ile	Phe	Ile	Gly	Ile	Gly	Tyr	Tyr	Leu	Ala	Ile
	210					215					220				
Lys	Pro	Asn	Thr	Ala	Ile	Gly	Ser	Leu	Gly	Ile	Ile	Phe	Phe	Ala	Ile
225					230					235					240
Leu	Ser	Thr	Leu	Ile	Gly	Thr	Tyr	Leu	Leu	Phe	Val	Ser	Leu	Gly	Ser
				245					250					255	
Ile	Val	Leu	Glu	Met	Leu	Gln	Lys	Leu	Asp	Tyr	Tyr	Tyr	Tyr	Lys	Pro
			260					265					270		
Asn	His	Phe	Phe	Phe	Ile	Ala	Gly	Leu	Lys	Ser	Arg	Val	Lys	Ser	Ser
		275					280					285			
Ala	Ile	Gly	Leu	Ala	Thr	Ile	Ser	Phe	Met	Cys	Thr	Phe	Leu	Ile	Val
						295					300				
Thr	Leu	Ser	Met	Thr	Val	Ser	Thr	Tyr	Arg	Asn	Met	Asp	His	Arg	Phe
305					310					315					320
Glu	Phe	Ala	Phe	Lys	Asn	Asp	Tyr	Ala	Gly	Tyr	Tyr	Ile	Gly	Asp	Phe
				325					330					335	
His	Lys	Asp	Ser	Lys	Leu	Gln	Arg	Lys	Ile	Glu	Asn	Leu	Lys	Lys	Asp
			340					345					350		
Ile	Arg	Gln	Glu	Val	Pro	Thr	Gly	Gln	Phe	Lys	Ile	Tyr	Ala	Arg	Gly
		355					360					365			
Met	Val	Gly	Ala	Glu	Leu	Gln	Gly	Gly	Leu	Lys	His	Lys	Lys	Leu	Lys
					375						380				
Arg	Gln	Thr	Val	Ser	Ser	Gly	Leu	Phe	Asn	Phe	Gly	Asn	Lys	Gln	Lys
385					390					395					400
Phe	Asn	Ser	Phe	Ile	Ser	Ile	Tyr	Asn	Lys	Ser	Asp	Tyr	Asn	Lys	Asn
				405					410					415	
Asn	Lys	Lys	Ile	Lys	Leu	Asp	Asp	Asp	Glu	Ile	Ala	Ile	Ser	Thr	Ser
			420					425					430		
Val	Ser	Leu	Phe	Lys	Lys	Met	Lys	Thr	Leu	Asn	Ile	Phe	Gly	Lys	Thr
		435					440					445			
Tyr	Arg	Val	Lys	Tyr	Ile	Glu	Ser	Thr	Asn	Ile	Asp	Asn	Leu	Leu	Tyr
		450				455					460				
Ala	Asp	Gly	Ile	Thr	Leu	Ile	Val	Asn	Gln	Gln	Gln	Leu	Met	Asp	Arg
465					470					475					480
Ile	Val	Asn	Glu	Tyr	Arg	Asn	His	Asn	Asp	Glu	Asn	Leu	Ile	Ile	Thr
				485					490					495	

1980-1981

Pro Asn Gln Val Gln Thr Ala Val Glu Phe Asn Val Leu Lys Glu Lys
 500 505 510
 Asp Lys Leu Asn His Arg Ile Lys Lys Ile Gly Val Gln His Asp Ile
 515 520 525
 Glu Phe Gln Val Lys Lys Gln Asn Leu Leu Met Trp Lys Gln Val Asn
 530 535 540
 Ser Ser Leu Val Phe Val Gly Ser Val Val Ser Leu Val Leu Leu Ile
 545 550 555 560
 Gly Ile Phe Leu Met Met Tyr Tyr Lys Gln Val Ser Glu Gly His Glu
 565 570 575
 Asp Arg Asp Ala Tyr Ile Thr Met Lys Gln Leu Gly Leu Asp Glu Ile
 580 585 590
 Leu Ile Lys Lys Thr Ile Asn Lys Gln Val Ile Trp Val Phe Leu Ile
 595 600 605
 Pro Val Ile Val Ala Ile Ile His Thr Leu Ala Ala Phe Arg Ile Ile
 610 615 620
 Tyr Ser Val Leu Gly Ile Val Gly Gln Tyr Asp Leu Gly Leu Tyr Ala
 625 630 635 640
 Thr Ser Tyr Val Gly Val Ile Val Val Phe Ile Ile Phe Tyr Ser Ile
 645 650 655
 Met Tyr Trp Ile Thr Ser Arg Ile Tyr Tyr Thr Met Ile Asn Gly Lys
 660 665 670
 His

<210> 4987

<211> 541

<212> PRT

<213> S.epidermidis

<400> 4987

Arg Met Ile Leu Val Gln Leu Ile Leu Phe Ile Lys Leu Ile Ser Tyr
 1 5 10 15
 Leu Lys Val Met Phe Gln Val Ala Arg Lys Phe Arg Val Leu Gln Val
 20 25 30
 Gly Gly His Asp Leu Gly Ser Leu Phe Asn Gln Lys Ser Asn Val Glu
 35 40 45
 Trp Asp Tyr Phe Asp Val Gly Leu Phe Asp Phe Glu Ser Gly Tyr Gln
 50 55 60
 Asp Val Val Val His Ile Leu Asp Glu Lys Gly Gln Phe Asp Phe Val
 65 70 75 80
 Phe Val Arg Glu Lys Tyr Ser Asp Ser Leu Met Lys Leu Leu Ser Leu
 85 90 95
 Val Ser Thr Pro Tyr Asn Thr Val Ile Asp Asn Glu Tyr Trp Asp Asn
 100 105 110
 Gln Tyr Gln Gln Asp Lys Thr Ile Gln Arg Asn Phe Ile Lys Pro Leu
 115 120 125
 Ile Tyr Glu Asn Glu Glu Gln Leu Gln Gln Lys Leu Glu Ala Val Thr
 130 135 140
 Phe Pro Gly Gln Tyr Gly Asp Lys Val Lys Pro Ile His Cys Arg Val
 145 150 155 160
 Ser Ile His Phe Asp Gly Ser Tyr Gln Phe Asn Gly Asn Glu Ser Ile
 165 170 175
 Glu Val Ser Gly Arg Phe Gly Glu Ser Tyr Gln Pro Leu Ile Thr Trp
 180 185 190
 Ser Gln Asn Ile Ile Ala Asp Ala Asn Lys Val Asn Gln Ile Trp Pro

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<210> 4988
<211> 236
<212> PRT
<213> S.epidermidis
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<400> 4988
 Gly Asp Asn Met Lys Arg Thr Asp Lys Tyr Arg Asp Ser Tyr Lys Tyr
 1 5 10 15
 Asp Asp Gln Tyr Gln Asn His Arg Lys Arg Ser Glu Glu Asp Met Tyr
 20 25 30
 Arg Gln His Gln Glu Ser Gln Gln Arg Ala Asn Ser Asn Arg Ala Thr
 35 40 45

1983

Gln	Ser	Glu	Asn	Asp	Arg	Glu	Tyr	Glu	Asn	His	Pro	Glu	Arg	Tyr	Tyr
50						55					60				
Asn	Gly	Arg	Asp	Tyr	Arg	Arg	Glu	Gln	Gln	Leu	Glu	Glu	Glu	Asn	Glu
65					70					75					80
Lys	Ser	Ser	Lys	Thr	Lys	Lys	Trp	Leu	Ile	Ala	Ile	Ile	Val	Ile	Leu
				85						90					95
Leu	Ile	Ile	Val	Ala	Ile	Phe	Ile	Thr	Arg	Ala	Ile	Ile	Asn	His	Asn
			100					105						110	
Asn	Asp	Lys	Val	Ser	Asn	Asp	Pro	Asn	Val	Ser	Gln	Asn	Tyr	Lys	Lys
		115					120								
Glu	Val	Glu	Asn	Gln	Asn	Asp	Asp	Ile	Asn	Arg	Gln	Val	Asp	Ser	Ala
	130					135					140				
Lys	Ser	Asp	Ile	Lys	Asn	Lys	Lys	Asp	Thr	Gln	Ser	Gln	Ile	Asp	Lys
145					150					155					160
Leu	Gln	Asn	Gln	Ile	Asp	Gln	Leu	Lys	Gln	Asn	Glu	Glu	Thr	Asn	Ala
				165					170						175
Asp	Ser	Lys	Phe	Thr	Lys	Phe	Tyr	Gln	Asn	Gln	Ile	Asp	Lys	Leu	Lys
			180					185					190		
Asn	Ala	Asn	Asn	Ala	Gln	Leu	Asn	Asn	Glu	Asn	Gln	Ser	Lys	Val	Asn
			195					200					205		
Asn	Met	Leu	Glu	Asp	Ile	Asn	Thr	Lys	Phe	Asp	Ser	Ile	Lys	Ala	Lys
	210					215					220				
Leu	Glu	Asn	Ile	Leu	Asn	Gly	Ser	Asn	Ser	Gly	Asn				
225					230						235				

<210> 4989

<211> 347

<212> PRT

<213> S.epidermidis

<400> 4989

Val	Val	Asn	Met	Leu	Glu	Gln	Thr	Asp	Leu	Ser	Leu	Glu	Gln	Leu	Leu
1				5					10					15	
Lys	Asn	Tyr	Tyr	Glu	Thr	Thr	Asn	Glu	Lys	Ile	Val	Phe	Val	Asn	Arg
			20					25					30		
Gln	Gly	Lys	Ile	Ile	Ala	Met	Asn	Asp	Ala	Ala	Lys	Asp	Ile	Leu	Thr
		35					40					45			
Glu	Glu	Asp	Asn	Tyr	Asn	Ala	Met	Thr	Asn	Ala	Ile	Cys	His	Arg	Cys
		50				55					60				
Glu	Gly	Tyr	Ser	Asn	Glu	Tyr	Asp	Val	Gln	Ser	Cys	Lys	Asp	Cys	Phe
65					70					75					80
Leu	Glu	Thr	Thr	Gln	Leu	Gln	His	Ser	Asn	Phe	Gln	Val	Phe	Met	Lys
				85					90						95
Thr	Lys	Asp	Asn	Glu	Ile	Lys	Pro	Phe	Thr	Ala	Met	Tyr	Gln	Asn	Ile
			100					105						110	
Asp	Glu	Gln	Arg	Gly	Ile	Ser	Ala	Phe	Thr	Leu	Gln	Asn	Val	Ala	Pro
		115					120						125		
Gln	Ile	Glu	Arg	Gln	Glu	Lys	Met	Tyr	Gln	Gln	Lys	Met	Leu	His	Arg
	130					135					140				
Ser	Ile	Gln	Ala	Gln	Glu	Asn	Glu	Arg	Lys	Arg	Ile	Ser	Arg	Glu	Leu
145					150					155					160
His	Asp	Ser	Val	Ile	Gln	Asp	Met	Leu	Asn	Ile	Asp	Val	Glu	Leu	Arg
				165					170						175
Leu	Leu	Lys	Tyr	Lys	His	Arg	Asp	Lys	Val	Leu	Ala	Glu	Thr	Ser	Gln
			180					185					190		
Arg	Ile	Glu	Gly	Leu	Leu	Ser	Gln	Leu	Ile	Asp	Asp	Ile	Arg	Asn	Met

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<210> 4990
<211> 177
<212> PRT
<213> S.epidermidis
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[illegible]

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<210> 4991
<211> 196
<212> PRT
<213> S.epidermidis
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<400> 4991

Lys	Tyr	Asp	Ile	Asn	Glu	Met	Gly	Asp	Lys	Met	Tyr	Lys	Tyr	Leu	Lys
1				5					10					15	
Arg	Asn	Arg	Phe	Ser	Thr	Gln	Thr	Ser	Ile	Ile	Lys	Asn	Asp	Ala	Gln
			20					25					30		
Gln	Pro	Val	Gly	Met	Ile	Ser	Lys	Val	Tyr	Lys	Asn	Phe	Ile	Gln	Lys
		35					40					45			
Cys	Ile	Gly	Tyr	Leu	Thr	Leu	Gly	Leu	Lys	Leu	Asn	Gln	Tyr	Glu	Ile
	50					55					60				
Cys	Asp	Val	Asn	Asn	Asn	Ser	Val	Ala	Tyr	Ile	Lys	Val	Ser	Arg	Tyr
65					70					75				80	
Met	Glu	Lys	Lys	His	Phe	Lys	Val	Glu	Tyr	His	Asp	Ser	Lys	Gly	Arg
				85					90					95	
Gln	Cys	Glu	Ala	Leu	Phe	Asp	Lys	Gln	Ser	Asn	Gly	Tyr	Glu	Glu	Thr
			100					105					110		
Tyr	Gly	Ile	Leu	Lys	Ile	Asp	Gly	Ile	Ile	Leu	Asn	Ile	His	Ala	Asn
		115					120					125			
Glu	Lys	His	His	Thr	Thr	Ile	Lys	Asp	Ile	Lys	Arg	Asp	Thr	Gln	Ile
	130					135					140				
Ala	Ser	Trp	Lys	Gln	Ile	Gly	Asp	Tyr	Ala	Tyr	Ala	Glu	Gly	Asn	Asp
145					150					155				160	
Gly	Leu	Phe	Lys	Glu	His	Gln	Leu	Leu	Tyr	Ile	Leu	Ile	Met	His	Ala
				165					170					175	
Phe	Ala	Asn	Thr	Tyr	Val	Ser	Lys	Arg	Gln	Thr	Ser	Leu	Met	Phe	Pro
			180					185					190		
Gly	Pro	Pro	Val												
			195												

<210> 4992

<211> 47

<212> PRT

<213> S.epidermidis

<400> 4992

Ile	Phe	Asp	Ile	Lys	Cys	Arg	Leu	Ser	Leu	Tyr	Ile	His	Leu	Ser	Gln
1				5					10					15	
Pro	Pro	Ile	Ser	Leu	Gln	Thr	His	Tyr	Ser	Glu	Leu	Lys	Phe	Asn	Ile
			20					25					30		
Glu	Thr	Leu	Cys	His	Ile	Thr	Val	Val	Ser	Tyr	Ile	Ile	Tyr	Arg	
		35					40					45			

<210> 4993

<211> 46

<212> PRT

<213> S.epidermidis

<400> 4993

Asp	Ile	Asp	Ile	Cys	Leu	Arg	Cys	Phe	Val	Tyr	Trp	Lys	Leu	Met	Ala
1				5					10					15	
Glu	Phe	Lys	Met	Cys	Arg	Ser	Lys	Ser	Leu	Tyr	Tyr	Lys	Phe	Phe	Lys
			20					25					30		
Lys	Val	Tyr	Asp	Gly	Arg	Tyr	Phe	Asn	Gln	Leu	Leu	Phe	Phe		
		35					40					45			

<210> 4994

<211> 382

<213> S.epidermidis

Val 1	Lys	Cys	Ile	Phe 5	Ser	Gln	Lys	Leu	Tyr 10	Ile	Ser	Ile	Gln	Gln 15	Thr
Trp	Tyr	Asn	Tyr	Cys	Glu	Lys	Phe	His	Ile	Ile	Asn	Gly	Gly	Ile	Asp
			20					25					30		
Met	Lys	Ala	Tyr	Glu	Tyr	Leu	Lys	Pro	Gly	His	Ala	Gln	Leu	Thr	Asp
		35					40					45			
Lys	Glu	Lys	Pro	Thr	Ile	Thr	Ser	Ser	Thr	Asp	Ala	Ile	Ile	Arg	Ile
	50					55					60				
Val 65	Lys	Thr	Thr	Ile	Cys	Gly	Thr	Asp	Leu	His	Ile	Ile	Lys	Gly	Asp
					70					75					80
Thr	Pro	Glu	Val	Lys	Ser	His	Thr	Thr	Leu	Gly	His	Glu	Gly	Ile	Gly
				85					90					95	
Ile	Ile	Glu	Glu	Ile	Gly	Asp	Asn	Val	Asn	Asn	Phe	Lys	Val	Gly	Asp
			100					105					110		
Lys	Val	Ile	Ile	Ser	Cys	Ile	Ser	Ser	Cys	Gly	Lys	Cys	Tyr	Tyr	Cys
		115					120					125			
Lys	Lys	Gly	Ile	Tyr	Ala	His	Cys	Glu	Asn	Gly	Gly	Gly	Trp	Ile	Leu
	130					135					140				
Gly 145	His	Leu	Val	Asn	Gly	Thr	Gln	Ala	Glu	Tyr	Val	Lys	Val	Pro	Phe
					150					155					160
Ala	Asp	Asn	Ser	Leu	Tyr	His	Ala	Pro	Ser	Asn	Leu	Lys	Asp	Asp	Ala
				165					170					175	
Leu	Val	Met	Leu	Ser	Asp	Ile	Leu	Pro	Thr	Gly	Tyr	Glu	Ile	Gly	Val
			180					185					190		
Leu	Lys	Gly	Lys	Val	Lys	Pro	Gly	Cys	Thr	Val	Ala	Ile	Val	Gly	Ala
		195					200					205			
Gly	Pro	Val	Gly	Leu	Ala	Ala	Leu	Leu	Thr	Ala	Gln	Phe	Tyr	Ser	Pro
	210					215					220				
Ser 225	Lys	Ile	Ile	Met	Ile	Asp	Leu	Asp	Asp	Asn	Arg	Leu	Glu	Thr	Ala
					230					235					240
Lys	Glu	Leu	Gly	Ala	Thr	His	Leu	Ile	Asn	Ser	Lys	Glu	Thr	Glu	Thr
				245					250					255	
Ala	Ile	Lys	Lys	Val	Lys	Ser	Leu	Asn	Pro	Arg	Gly	Val	Asp	Val	Ala
				260				265					270		
Ile	Glu	Ala	Val	Gly	Ile	Pro	Gln	Thr	Phe	Asp	Leu	Cys	Gln	Asn	Leu
		275					280					285			
Ile	Gly	Val	Asp	Gly	Thr	Ile	Ala	Asn	Val	Gly	Val	His	Gly	Leu	Pro
	290					295					300				
Val 305	Gln	Leu	Asp	Ile	Asp	Lys	Leu	Trp	Ile	Lys	Asn	Ile	Asn	Val	Thr
					310					315					320
Thr	Gly	Leu	Val	Ser	Gly	Asn	Thr	Thr	Glu	Glu	Leu	Leu	Glu	Ala	Leu
				325					330					335	
Lys	Ser	Lys	Ile	Ile	Gln	Pro	Glu	Gln	Leu	Val	Thr	His	Tyr	Ser	Lys
			340					345					350		
Leu	Ser	Glu	Ile	Glu	Ser	Ala	Tyr	Asp	Leu	Phe	Arg	Asn	Ala	Thr	Asp

<211> 53

<212> PRT

<400> 4995

<210> 4996

<211> 66

<212> PRT

<213> S.epidermidis

<400> 4996

<210> 4997

<211> 41

<212> PRT

<213> S.epidermidis

<400> 4997

<210> 4998

<211> 89

<212> PRT

<213> S.epidermidis

<400> 4998

Ile	Ile	Phe	Ile	Phe	Lys	Leu	Phe	Leu	Ser	Leu	Asn	Leu	Lys	Thr	Asn
1				5					10					15	
Lys	Tyr	Val	Tyr	Lys	Ile	Tyr	Asn	Leu	Ile	His	Thr	Lys	Lys	His	Leu
			20					25					30		
Lys	Cys	Phe	His	Tyr	Ser	Phe	Lys	Val	Leu	Ile	Lys	Leu	Asn	Ile	Tyr
		35					40					45			
Phe	Asn	Gly	Tyr	Leu	His	His	Asp	Arg	His	Leu	Gln	Tyr	Phe	Tyr	Leu
	50					55					60				

[illegible]

<400> 4999

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<210> 5000
<211> 521
<212> PRT
<213> S.epidermidis
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<400> 5000

Gly 1	Val	Ile	Ile	Glu 5	Met	Lys	Ile	Phe	Lys 10	Thr	Leu	Ser	Ser	Ile 15	Leu
Val	Thr	Ser	Val	Leu	Ser	Val	Thr	Val	Ile	Pro	Ser	Thr	Phe	Ala	Ser
			20					25					30		
Thr	Glu	Ser	Thr	Ala	Thr	Asn	Gln	Thr	Gln	Gln	Thr	Val	Leu	Phe	Asp
			35				40						45		
Asn	Ser	His	Ala	Gln	Thr	Ala	Gly	Ala	Ala	Asp	Trp	Val	Ile	Asp	Gly
						55					60				
Ala	Phe	Ser	Asp	Tyr	Ala	Asp	Ser	Met	Arg	Lys	Gln	Gly	Tyr	Gln	Val
65					70					75					80
Lys	Glu	Leu	Glu	Gly	Glu	Ser	Asn	Ile	Ser	Asp	Gln	Ser	Leu	Gln	Gln
				85					90					95	
Ala	His	Val	Leu	Val	Ile	Pro	Glu	Ala	Asn	Asn	Pro	Phe	Lys	Glu	Asn
			100					105					110		
Glu	Gln	Lys	Ala	Ile	Ile	Asn	Phe	Val	Lys	Asn	Gly	Gly	Ser	Val	Ile
			115				120					125			
Phe	Ile	Ser	Asp	His	Tyr	Asn	Ala	Asp	Arg	Asn	Leu	Asn	Arg	Ile	Asp
			130			135					140				
Ser	Ser	Glu	Ser	Met	Asn	Gly	Tyr	Arg	Arg	Gly	Ala	Tyr	Glu	Asn	Ile
145					150					155					160
Thr	Lys	Asp	Met	Asn	Glu	Glu	Lys	Asn	Ser	Asn	Val	Met	His	Asn	
				165				170						175	
Val	Lys	Ser	Ser	Asp	Trp	Leu	Ser	Gln	Asn	Phe	Gly	Val	Arg	Phe	Arg
			180					185					190		

Tyr Asn Ala Leu Gly Asp Ile Asn Thr Gln Asn Ile Val Ser Ser Lys
 195 200 205
 Asp Ser Phe Gly Ile Thr Lys Gly Val Gln Ser Val Ser Met His Ala
 210 215 220
 Gly Ser Thr Leu Ala Ile Thr Asp Pro Asn Lys Ala Lys Gly Ile Ile
 225 230 235 240
 Tyr Met Pro Glu His Leu Thr His Ser Gln Lys Trp Ser His Ala Val
 245 250 255
 Asp Gln Gly Ile Tyr Asn Gly Gly Gly Ile Asn Glu Gly Pro Tyr Val
 260 265 270
 Ala Ile Ser Lys Ile Gly Lys Gly Lys Ala Ala Phe Ile Gly Asp Ser
 275 280 285
 Ser Leu Val Glu Asp Arg Ser Pro Lys Tyr Leu Arg Glu Asp Asn Gly
 290 295 300
 Lys Pro Lys Lys Thr Tyr Asp Gly Phe Lys Glu Gln Asp Asn Gly Lys
 305 310 315 320
 Leu Leu Asn Asn Leu Thr Thr Trp Leu Gly Lys Lys Glu Ser Gln Pro
 325 330 335
 Ser Met Lys Asp Met Gly Ile Lys Leu Asp Asn Lys Thr Pro Leu Leu
 340 345 350
 Asn Phe Glu Gln Pro Glu Asn Ser Ile Glu Pro Gln Lys Glu Pro Trp
 355 360 365
 Thr Thr Pro Ile Glu Gly Tyr Lys Trp Tyr Asp Arg Ser Thr Phe Lys
 370 375 380
 Lys Gly Ser Tyr Gly Ser Asn Gln Arg Gly Ala Asp Asp Gly Val Asp
 385 390 395 400
 Asp Lys Ser Ser Ser His Gln Asn Gln Asn Ala Lys Val Glu Leu Thr
 405 410 415
 Leu Pro Gln Asn Ile Gln Pro His His Pro Phe Gln Phe Thr Ile Lys
 420 425 430
 Leu Thr Gly Tyr Glu Pro Asn Ser Thr Ile Asn Asp Val Arg Val Gly
 435 440 445
 Leu Tyr Lys Asp Gly Gly Lys Gln Ile Gly Ser Phe Ser Ser Asn Arg
 450 455 460
 Asn Gln Phe Asn Thr Pro Gly Tyr Ser Pro Ser Gln Ser Ile Lys Thr
 465 470 475 480
 Asn Gly Ala Gly Glu Ala Ser Phe Thr Leu Thr Ala Lys Val Thr Asp
 485 490 495
 Glu Ile Lys Asp Ala Asn Ile Arg Val Lys Gln Gly Lys Lys Ile Leu
 500 505 510
 Leu Thr Gln Lys Met Asn Glu Asn Phe
 515 520

<210> 5001

<211> 207

<212> PRT

<213> S.epidermidis

<400> 5001

Glu Glu Ile Ile Met Asn Met Pro Leu Met Ile Asp Leu Ser Asn Lys
 1 5 10 15
 Lys Val Val Ile Val Gly Gly Gly Lys Val Ala Thr Arg Arg Ala Lys
 20 25 30
 Thr Leu Leu Ala Tyr Thr Lys His Ile His Val Val Ser Pro Thr Ile
 35 40 45
 Thr Asp Thr Leu Gln Lys Tyr Leu Glu Thr Lys Gln Ile Thr Tyr Glu

[illegible]

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<210> 5002
<211> 40
<212> PRT
<213> S.epidermidis

<400> 5002
Asp Asp Ser Met Tyr Ser Asn Ala Lys Ser His Val Cys Lys Lys Leu
1          5          10          15
Val Thr Ile Lys Lys Gly Ala Glu Leu Asn Ser Ser Lys Asn Ser Met
          20          25          30
Ser Arg Ser Ile Ala Leu Ile Asp
          35          40

<210> 5003
<211> 144
<212> PRT
<213> S.epidermidis

<400> 5003
Ser Ser Pro Ile Trp Tyr Lys Thr Ile Thr Val Gln Arg Arg Asn Ile
1          5          10          15
Met Lys Leu Thr Arg Ile His Tyr Glu Ile Ile Lys Phe Ile Ile Val
          20          25          30
Gly Gly Ile Asn Thr Phe Asn Tyr Tyr Ile Thr Tyr Leu Phe Leu Leu
          35          40          45
Lys Val Leu His Val Asn Tyr Met Val Ser His Ile Val Gly Phe Ile
          50          55          60
Val Ser Phe Ile Ile Ser Tyr Tyr Leu Asn Cys Tyr Phe Val Tyr Lys
65          70          75          80
Val Lys Pro Thr Ile Glu Lys Phe Leu Arg Phe Pro Ile Thr Gln Ile
          85          90          95
Val Asn Met Val Met Gln Thr Leu Leu Tyr Ile Phe Val Lys Trp
          100          105          110
Leu Asn Ile Ala Ser Glu Ile Ala Pro Phe Ala Gly Leu Ile Ile Thr
          115          120          125
Ile Pro Val Thr Phe Ile Leu Ser Lys Trp Leu Leu Arg Asp Lys Val

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<210> 5004

<211> 68

<212> PRT

<213> S.epidermidis

<400> 5004

Phe Leu Tyr Ile Arg His Leu Val Asn Leu Val Tyr Trp Tyr Leu Leu
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 Asn Tyr Thr Lys Gly Pro Tyr Phe Ser Lys Tyr Phe Asn Ile Lys Leu
 20 25 30
 His Ile Cys Thr Lys Tyr Phe Gly Glu Thr Leu Glu Gly Thr Gly Gln
 35 40 45
 Ala Glu Asp Tyr Arg Leu Lys Leu Ser Asp Lys Lys Ala Ser Gln Gln
 50 55 60
 Tyr Glu Val Leu
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<210> 5005

<211> 568

<212> PRT

<213> S.epidermidis

<400> 5005

Leu Phe Asn Ile Tyr Lys Gly Val Phe Met Lys Asn Asn Ser Lys Ser
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 Lys Ser Asn Lys Ile Ser Leu Ser Gln Leu Val Leu Leu Gly Leu Gly
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 Ser Leu Ile Gly Ser Gly Trp Leu Phe Gly Ala Trp Glu Ala Ser Ser
 35 40 45
 Met Ala Gly Pro Ala Ala Ile Ser Trp Val Ile Gly Phe Leu Val
 50 55 60
 Ile Gly Thr Ile Ala Tyr Asn Tyr Ile Glu Ile Gly Thr Met Phe Pro
 65 70 75 80
 Gln Ser Gly Gly Met Ser Asn Tyr Ala Gln Tyr Thr His Gly Ser Leu
 85 90 95
 Leu Gly Phe Ile Ala Ala Trp Ala Asn Trp Val Ser Leu Val Thr Ile
 100 105 110
 Ile Pro Ile Glu Ala Val Ser Ala Val Gln Tyr Met Ser Ser Trp Pro
 115 120 125
 Trp Asp Trp Ala Lys Pro Met Gly Ser Leu Met Lys Asp Gly Ser Ile
 130 135 140
 Ser Thr Tyr Gly Leu Ile Ala Val Tyr Ile Ile Ile Ala Ile Phe Ser
 145 150 155 160
 Leu Leu Asn Tyr Trp Ser Val Lys Leu Leu Thr Ser Phe Thr Ser Leu
 165 170 175
 Ile Ser Val Phe Lys Leu Gly Val Pro Ile Leu Thr Ile Ile Met Leu
 180 185 190
 Leu Val Ser Gly Phe Asp Thr Gly Asn Tyr Gly His Ser Ile Gly Thr
 195 200 205
 Phe Met Pro Tyr Gly Ser Ala Pro Ile Phe Ala Ala Thr Thr Thr Ser
 210 215 220
 Gly Ile Ile Phe Ser Phe Asn Ala Phe Gln Thr Ile Ile Asn Met Gly
 225 230 235 240
 Ser Glu Ile Lys Asn Pro Glu Lys Asn Ile Ala Arg Gly Ile Val Ile

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1992

				245					250					255			
Ser	Leu	Thr	Leu	Ser	Ala	Ile	Leu	Tyr	Ile	Val	Leu	Gln	Ser	Thr	Phe		
			260					265					270				
Ile	Thr	Ser	Met	Pro	Ser	Ser	Met	Leu	His	Glu	His	Gly	Trp	Ser	Gly		
		275					280					285					
Ile	Asn	Phe	Asn	Ser	Pro	Phe	Ala	Asp	Met	Ala	Ile	Leu	Leu	Gly	Leu		
	290					295					300						
Asn	Trp	Leu	Ala	Ile	Leu	Leu	Tyr	Met	Glu	Ala	Val	Val	Ser	Pro	Phe		
305					310					315					320		
Gly	Thr	Gly	Val	Ser	Phe	Val	Ala	Val	Thr	Gly	Arg	Val	Leu	Arg	Ala		
				325					330					335			
Met	Glu	Glu	Asn	Gly	His	Ile	Pro	Lys	Phe	Leu	Gly	Lys	Ile	Asn	Lys		
			340					345					350				
Lys	Tyr	Asn	Ile	Pro	Arg	Val	Ala	Ile	Ala	Phe	Asn	Ala	Ile	Ile	Ser		
		355					360					365					
Met	Val	Met	Val	Thr	Leu	Phe	Arg	Asp	Trp	Gly	Thr	Leu	Ala	Ala	Val		
	370					375					380						
Ile	Ser	Thr	Ala	Thr	Leu	Val	Ala	Tyr	Leu	Thr	Gly	Pro	Thr	Thr	Val		
385					390					395					400		
Ile	Ser	Leu	Arg	Lys	Met	Ala	Pro	Lys	Met	Thr	Arg	Pro	Phe	Lys	Ala		
				405					410					415			
Asn	Ile	Leu	Lys	Phe	Met	Ala	Pro	Leu	Ser	Phe	Val	Leu	Ala	Ser	Leu		
			420					425					430				
Ala	Ile	Tyr	Trp	Ala	Met	Trp	Pro	Thr	Thr	Ala	Glu	Val	Ile	Leu	Ile		
		435					440					445					
Ile	Ile	Leu	Gly	Leu	Pro	Ile	Tyr	Phe	Phe	Tyr	Glu	Tyr	Lys	Met	Asn		
	450					455					460						
Trp	Lys	Asn	Thr	Lys	Lys	Gln	Ile	Gly	Gly	Ser	Leu	Trp	Ile	Ile	Ile		
465					470					475					480		
Tyr	Leu	Ile	Val	Leu	Ala	Phe	Leu	Ser	Phe	Ile	Gly	Ser	Lys	Glu	Phe		
				485					490					495			
Lys	Gly	Leu	Asn	Trp	Ile	His	Tyr	Pro	Trp	Asp	Phe	Leu	Val	Ile	Val		
			500					505					510				
Ile	Val	Ala	Leu	Ile	Phe	Tyr	Gln	Leu	Gly	Thr	Thr	Ser	Tyr	Phe	Glu		
		515					520					525					
Ser	Ile	Tyr	Phe	Lys	Arg	Ala	Asn	Lys	Leu	Asn	Lys	Lys	Met	Gly	Asp		
	530					535					540						
Lys	Leu	Arg	Lys	Thr	Arg	Lys	Lys	Ala	Arg	His	Lys	Asp	Trp	Lys	Glu		
545					550					555					560		
Arg	Asp	Arg	Gln	Glu	Gln	Asn	Gln										
				565													

<210> 5006

<211> 513

<212> PRT

<213> S.epidermidis

<400> 5006

Glu	Ala	Asn	Met	Glu	Glu	Arg	Ile	Gly	Leu	Ile	Asp	Ile	Gly	Ser	Asn		
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Thr	Ile	Arg	Leu	Val	Ile	Phe	Gly	Tyr	Asn	Lys	Lys	Thr	Gly	Leu	Asn		
			20				25					30					
Glu	Ile	Leu	Asn	Ile	Lys	Thr	Pro	Ala	Arg	Leu	Ser	Gln	Tyr	Leu	Thr		
		35				40					45						
Lys	Ser	Asn	Glu	Met	Asn	Asp	Glu	Gly	Ile	His	Val	Leu	Lys	Glu	Thr		
50						55					60						

1993

Leu	Ser	Ser	Phe	Arg	Lys	Val	Ala	Asp	Lys	Phe	Asn	Val	Asp	Ala	Leu
65					70					75					80
Tyr	Pro	Ile	Ala	Thr	Ala	Ala	Ile	Arg	Gln	Ser	Lys	Asn	Arg	Glu	Ala
				85					90					95	
Ile	Ile	Lys	Glu	Ile	Lys	Gln	Asp	Ile	His	Ile	Glu	Ile	Gln	Ile	Val
			100					105					110		
Pro	Glu	Glu	Asp	Glu	Ala	Phe	Tyr	Gly	Tyr	Tyr	Ala	Ile	Thr	His	Thr
		115					120					125			
Thr	Asp	Ile	Glu	Asn	Gly	Ile	Ser	Val	Asp	Ile	Gly	Gly	Gly	Ser	Thr
	130					135					140				
Glu	Val	Thr	Leu	Phe	Lys	Asp	Lys	Gln	Leu	Lys	Glu	Ala	His	Ser	Phe
145					150					155					160
Pro	Phe	Gly	Val	Val	Ser	Leu	Lys	Arg	Gln	Phe	Phe	Gly	Asp	Lys	Ala
				165					170					175	
His	Asn	Asp	Lys	Thr	Ala	Ile	Lys	Asn	Met	Glu	Gln	Phe	Leu	Arg	Glu
			180					185					190		
Gln	Phe	Ser	Gln	Leu	Asp	Trp	Leu	Ser	Asn	Gln	His	Ile	Ala	Leu	Val
		195					200					205			
Gly	Val	Gly	Gly	Ser	Ala	Arg	Asn	Val	Ala	Arg	Ile	His	Gln	Ser	Ala
	210					215					220				
His	Ala	Tyr	Pro	Ile	Gly	Gly	Val	His	Asn	Tyr	Lys	Met	Thr	Ser	Lys
225					230					235					240
Asp	Ile	Asn	Asn	Val	Tyr	Asp	Leu	Ile	Arg	Lys	Ser	Ser	Arg	Asp	Glu
				245					250					255	
Leu	Thr	Asn	Leu	Asp	Gly	Leu	Ser	Arg	Asp	Arg	Val	Asp	Ile	Ile	Leu
			260					265					270		
Pro	Ala	Ile	Ser	Val	Phe	Lys	Thr	Leu	Phe	Lys	Lys	Ile	Asp	Ala	Thr
		275					280					285			
Gln	Phe	Thr	Phe	Ser	Arg	Lys	Gly	Ile	Arg	Glu	Gly	Phe	Ile	Met	Asn
	290					295					300				
His	Ile	Ser	Lys	Arg	Tyr	Pro	Asp	Glu	Phe	Asn	Lys	Ser	Asn	Val	Arg
305					310					315					320
Lys	Asp	Ala	Leu	Arg	His	Leu	Ala	Asn	Glu	Tyr	His	Ile	Glu	Glu	Thr
				325					330					335	
Ser	Ala	Asn	Arg	Arg	Val	Lys	Leu	Ala	Gln	Ser	Leu	Leu	Asn	Gln	Ile
			340					345					350		
Ile	Ser	Glu	Arg	Ser	Leu	Asn	Ile	Ser	Ala	Met	Glu	Lys	Glu	Leu	Phe
		355					360					365			
Ile	Glu	Gly	Ser	Tyr	Ile	Tyr	Tyr	Leu	Gly	Ser	Phe	Ile	Asp	Ser	Asp
	370					375					380				
Ser	Ser	Ser	Pro	His	Thr	Tyr	Tyr	Leu	Ile	Ala	Asn	Ser	Met	Ile	Asn
385					390					395					400
Gly	Phe	Ser	His	Lys	Asp	Arg	Val	Lys	Leu	Ala	Leu	Leu	Ala	Ser	Phe
				405					410					415	
Lys	Asn	Lys	Ser	Leu	Leu	Lys	Phe	Tyr	Cys	Lys	Glu	Thr	Gln	Trp	Phe
			420					425					430		
Ser	Asn	Lys	Glu	Ile	Asp	Thr	Ile	Gln	Ala	Leu	Gly	Gly	Ile	Ile	Lys
		435					440					445			
Phe	Ala	Asn	Thr	Leu	Asn	Ile	Ser	His	Thr	Ser	Phe	Val	Glu	Glu	Val
	450					455					460				
Lys	Leu	Lys	Ala	Lys	Lys	Asp	Asp	Lys	Tyr	Asp	Leu	Leu	Val	Tyr	Tyr
465					470					475					480
Lys	Gly	Ser	Pro	Ile	Ala	Glu	Glu	Tyr	Gln	Ala	Asn	Arg	Gln	Lys	Lys
				485					490					495	
His	Ile	Glu	Lys	Ile	Leu	Lys	Gly	Lys	Val	Ser	Ile	Ile	Phe	Thr	Lys
			500					505					510		

1993-1994

Ser

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<211> 57

<212> PRT

<213> S.epidermidis

<400> 5007

Arg	Leu	Arg	Ile	Phe	Lys	Leu	Ile	Glu	Asp	Ile	Asp	Asn	Glu	Pro	Asn
1				5					10					15	
Val	Glu	Pro	Trp	Tyr	Ala	Leu	Val	Lys	Leu	Met	Met	Tyr	Gly	Arg	Pro
			20					25					30		
Val	Tyr	Ala	Arg	Ala	Asn	Phe	Ile	Ile	Pro	Ser	Leu	Ala	Ser	Glu	Pro
		35					40					45			
Leu	Asn	Pro	Lys	Val	Thr	Leu	Phe	Ser							
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<213> S.epidermidis

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Asn	Arg	Ser	Ile	Tyr	Met	Tyr	Lys	Leu	Val	Lys	Pro	Leu	Leu	Phe	Lys
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Leu	Asp	Pro	Glu	Arg	Ala	His	Gly	Leu	Thr	Ile	Asn	Ala	Leu	Lys	Cys
			20				25					30			
Val	Gln	Lys	Cys	Ser	Pro	Ile	Leu	Pro	Ile	Val	Asn	Lys	Leu	Phe	Thr
	35						40					45			
Tyr	Asn	Asn	Pro	Ile	Leu	Thr	Gln	His	Ile	His	Gly	Ile	Ser	Phe	Asp
	50					55					60				
Asn	Pro	Ile	Gly	Leu	Ala	Ala	Gly	Phe	Asp	Lys	Ser	Cys	Glu	Val	Pro
65					70				75					80	
Lys	Ala	Leu	Glu	Asn	Ile	Gly	Phe	Gly	Ala	Ile	Glu	Leu	Gly	Gly	Ile
				85					90					95	
Thr	Pro	Lys	Pro	Gln	Pro	Gly	Asn	Pro	Lys	Pro	Arg	Met	Tyr	Arg	Leu
			100				105						110		
Leu	Glu	Asp	Asp	Ala	Leu	Ile	Asn	Arg	Met	Gly	Phe	Asn	Asn	Lys	Gly
		115					120					125			
Met	Asn	Lys	Ala	Leu	Ser	Asn	Leu	Arg	Asn	His	Ser	Cys	Ser	Ile	Pro
	130					135					140				
Val	Gly	Leu	Asn	Val	Gly	Val	Asn	Lys	Thr	Thr	Ser	Tyr	Glu	Asn	Arg
145					150					155				160	
Tyr	Gln	Asp	Tyr	Ile	Lys	Val	Ile	Asp	Thr	Phe	Lys	Asn	Asp	Val	Ser
			165						170					175	
Phe	Phe	Thr	Val	Asn	Ile	Ser	Ser	Pro	Asn	Thr	Glu	Asn	Leu	Gln	Asn
			180					185					190		
Phe	His	Asp	Glu	Asp	Glu	Phe	Ser	Met	Leu	Cys	Asp	Ala	Leu	Asn	Ser
	195						200					205			
Phe	Lys	Ala	Lys	Asn	Asn	Ile	Asn	Val	Pro	Ile	Phe	Leu	Lys	Leu	Thr
	210					215					220				
Ser	Asp	Met	Glu	Leu	Asp	Gly	Phe	Lys	Lys	Ile	Leu	Pro	Ser	Ile	Thr
225					230					235				240	
Asp	Thr	Phe	Asp	Gly	Val	Met	Leu	Ala	Asn	Thr	Thr	Arg	Gln	Arg	Asp
			245						250					255	

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1995

Gly Leu Asn Ser Lys Asn Lys Ile Gln Lys Gly Gly Leu Ser Gly Arg
 260 265 270
 Pro Leu Phe Gln Arg Asn Leu Gln Leu Val Lys Tyr Ala Tyr Gln Gln
 275 280 285
 Thr Arg Gly Asn Phe Leu Ile Ile Gly Thr Gly Gly Ile Phe Ser Ser
 290 295 300
 Glu Asp Ala Ile Lys Met Leu Arg Asn Gly Ala Ser Leu Leu Gln Ile
 305 310 315 320
 Tyr Ser Ser Leu Val Ile Glu Gly Pro Gly Leu Thr Lys Lys Met Asn
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 Lys Glu Ile Ala His Tyr Leu Thr Arg His Gly Tyr Ala Asn Val Ser
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 Asp Ile Ile Gly Leu Asp Ala
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 <213> S.epidermidis

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 Lys Val Thr Gln Ile Thr Val Leu Ala Tyr Leu Tyr Asn Ile Ser Ile
 20 25 30
 Lys Ile Thr Arg Ile Leu Leu Gln Phe Arg Tyr Lys Lys Phe Ile Leu
 35 40 45
 Met Thr Ile Phe Gln His Phe Ser Glu Ala Ile Asn Ser Ala Thr Asn
 50 55 60
 Phe Ile Thr Phe Ile Ile Val Arg Asp Lys Val Leu Ile Lys Tyr
 65 70 75 80
 Ile Ile Thr Met Leu Thr Ile His Lys Arg Asn Arg Phe Pro Ile Glu
 85 90 95
 Lys Cys Asn Thr Leu Phe Ile His Ile
 100 105

<210> 5010
 <211> 46
 <212> PRT
 <213> S.epidermidis

<400> 5010
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 Glu Val Lys Ile Gly Ile Thr Leu Ser Lys Arg Leu His Phe Ile Arg
 20 25 30
 Asp Lys Arg Leu Leu Gln Ile Ser Leu Lys Lys Asp Gly Phe
 35 40 45

<210> 5011
 <211> 394
 <212> PRT
 <213> S.epidermidis

<400> 5011
 Ile Ile Leu Met Arg Arg His Ser Met Glu Met Ser Glu Arg Leu Ala

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1996

1		5		10		15									
Ser	Ile	Pro	Asp	Ser	Tyr	Phe	Gly	Lys	Thr	Met	Gly	Arg	Ile	Val	Glu
		20						25					30		
His	Gly	Pro	Leu	Pro	Leu	Ile	Asn	Met	Ala	Val	Gly	Ile	Pro	Asp	Gly
		35					40					45			
Glu	Thr	Pro	Lys	Gly	Ile	Ile	Asn	His	Phe	Ser	Glu	Ala	Leu	Cys	Ile
		50				55					60				
Pro	Glu	Asn	Gln	Lys	Tyr	Gly	Pro	Phe	His	Gly	Lys	Asp	Ala	Phe	Lys
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Ser	Lys	Gly	Tyr	Asn	Met	Ser	Gly	Phe	Arg	Val	Gly	Phe	Ala	Val	Gly
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His	Ser	Lys	Gly	Gly	Ile	Tyr	Ile	Trp	Leu	His	Thr	Pro	Pro	Gly	Tyr
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Val	Ser	Leu	Ala	Leu	Asp	Asp	Lys	Gln	Leu	Glu	Glu	Ala	Ala	Asn	Arg
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